

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[PRICE 6d.]

INTERESTING MINING COMMUNITY IN TUSCANY.

On the bleak top of a spur of the Apennines, some 20 miles south of the little town of Pontedera in the Val d'Arno, and looking over the barren high grounds on which the ancient Etruscan City of Volterra stands on one side, and down far below over the wide valley of the Cecina, and the blue Mediterranean, with Elba in the distance on the other side, while "Wind, that grand old harper, smites his thunder-harp"—not exactly of pines, as Alexander Smith says, but in this case of cypresses and oak, most furiously around me,—for it is, in hardly less expressive language, blowing great guns—I am penning these lines. But no denizen of London is writing in more comfortable quarters. New publications, English, French, and American, lie around me. After my morning ramble among the fine points of view on the neighbouring hills, an excellent dinner, to which France, England, and distant Florence gardens had to contribute, awaited me. The fire is burning cheerily; the bed in the next room looks so inviting that the present letter will assuredly be a short one,—and the wind is welcome to howl its worst.

The luxuries of civilisation do not go forth to pitch their tent amid mountain solitudes without some due and sufficient reason. It is to be found in the peculiar appearance of the three hill-tops immediately above the house in which I am sitting, which, differing in colour and formation from the surrounding volcanic region, so notably as to arrest the observation of the most unskilled eye, declare plainly to such as are skilled to see the presence of mineral treasures? Not altogether. For though ancient workings have been found, proving that copper had been extracted from these hills by the Romans, and in all probability by the Etruscans also, and although in our own days attempts to work the mines with a profitable result had been made, yet civilisation, with her wet-nurse Wealth, stayed at home in her city haunts, and was not tempted to come out into the Apennine. There lay the means of wealth, but poverty only resulted from the attempt to seize them. The gnomes would understand no Italian conjuring, and held fast their treasure till the "open sesame" should be spoken by an Anglo-Saxon voice. English energy, enterprise, and skill had to be brought into contact with these same rich but rebellious red hill-tops, before progress, wealth, well-being, and civilisation could be evolved from them. In 1827 a French company had tried the adventure, and at the end of 10 years had satisfactorily convinced most lookers-on that the mines were worth nothing, and the working of them a ruinous blunder. At this juncture, an English gentleman, Mr. Sloane, was induced to visit the spot. His mineralogical science led him to form a prompt judgment of the value of the mines, despite the failure which had discredited them; and his unflinching reliance on this judgment induced him to become proprietor of all the shares which the previous owners did not wish to retain: an arrangement which made him the chief possessor and entire manager of the property. Since that time, a career of unbroken and ever-increasing success has rewarded the sagacity of his first opinion, and the energy and industry with which it has been carried out. The mine has proved a singularly rich one. The richest ore produces as much as 80 per cent. of copper, and the average product of the various qualities is about 30 per cent. A portion of the ore is exported as it is taken from the mine; but a large quantity is sent to be smelted at the furnaces of Briglia, in the Val di Bionzio, near Prato; where superior facilities of fuel (wood) and water power are found, which repay the cost of so long a transport. The establishment of Briglia is also the property of the proprietor of the mine.

La Cava is in many respects an interesting spot; and additional instances of the ever-increasing spread of English industry and English capital over the face of the globe are always welcome. But I should probably have not thought it worth while to call attention to this example of it, if merely a tale of successful mining enterprise were to be read here, and if Mr. Sloane were engaged in giving no other lesson to the Tuscans than one of industrial energy,—graciously needed as that is. But, in truth, the social aspects of the mining community assembled on this bleak Apennine top are such as might justify their being proposed as a model in other lands than Tuscany; and make an Englishman feel that he would much rather that Italian eyes should receive their notions of English industrial arrangements from this exported specimen of them, than from many a home sample. Every part of the enterprise has been carried out with a large, enlightened, and prudent liberality, which is producing the most admirable results. The course pursued has not unfrequently been found an up-hill one. What advance towards good is not? The ground was wholly new; and the moral materials not the most favourable. But steady perseverance, rectitude of intention, and true philanthropy have prevailed; and a generation of workers is growing up at La Cava, which will probably be a unique specimen in Tuscany. Every boy is taught reading, writing, and arithmetic; all have such practical knowledge imparted to them as will be most useful to them in the labour they are to be engaged in; and to the more promising a considerable amount of theoretical science on mining and kindred subjects is added. A girl school, fitted to produce good and thrifty housewives, has been also established. Every one on the works is taught to feel that he has an interest in the general success, and that this depends on the hearty and willing co-operation of all. Every boy on admission to the works agrees to a condition binding him to allow a certain per-centage on his wages to be kept back to be invested for him at interest, and his parents are made consenting parties to the agreement, in order to secure to the lad the sum accruing when he shall come of age. Every young man thus begins his independent life with a sum varying from 20*l.* to 25*l.*—a vantage ground for the rising generation which has not been obtained for them without some jealous grumbling from the seniors, who are apt to see their children rising into independence not always with feelings of pleasure.

Among other manifestations of the various civilising influences at work here, I had the pleasure of being present at a "grova generale" of the miners' band. A band-master is retained, at the expense of the wise and liberal proprietor, to give instruction in music to such of the workmen as manifest capabilities for it. This instruction, it must be observed, is given at hours taken, not from the repose of the labourers, but from the time of their work, without any diminution of their wages. A band costume—no small part of the reward of the successful musical students—has been provided for high days and holidays. But I was more struck and better pleased by seeing some 20 men and boys running up from the mine and out from the ore-washing houses, at the hour appointed for the practice, in their mining dresses, and hot from work. Several pieces from Verdi's recent operas were executed very creditably; but the great pride of these musical gnomes was the score of a "Miners' March," written by Rossini, and presented to his friend Sloane especially for the use of his miners' band. The original, in the handwriting of the maestro, was framed, and formed the ornament of the concert-room.

I might say much of shafts and galleries, and adit-levels, of a chapel to St. Barbara, the miners' saint, at the bottom of the mine, of the geological interest attaching to this, in many respects, peculiar group of rocks, of the fine and varied views in the environs, &c.:—but the moral and social aspects which have grown up here under the culture of a judicious, energetic, and large-hearted Englishman, were what I chiefly wished to advert to.—T. A. T.: La Cava, Val di Cecina.

NATIONAL BRAZILIAN MINING ASSOCIATION.—In the Court of Appeal,

on Monday last, an appeal from a decision of Vice-Chancellor Wood came before His Honour on a motion by Mr. Sheppard, suing on behalf of himself and all other the shareholders in the National Brazilian Mining Association, except the defendant, Edward Oxenford, for an injunction to restrain the defendant from selling, or otherwise disposing of or dealing with, the property of the association, from removing from the office the books, documents, and other property of the association, and for the appointment of some fit and proper person to receive and get in all moneys due and owing to the association, and all remittances made on account thereof from the Brazil or elsewhere, and generally to conduct and manage the affairs of the association. The facts of the case having already appeared in the Journal, it is only necessary to add, that the matter now came before this Court on a motion to discharge His Honour's order, and on a demurrer filed to the bill in the cause. The Lords Justices overruled the demurrer, reserving the benefit of it to the hearing and on the appeal motion, and made an order confirming that of the Vice-Chancellor, with this addition:—appointing Mr. Oxenford receiver and manager of the property in Brazil, with directions to carry on the working of the mines in the ordinary course of business; let him pass his accounts, and pay the balances into Court half-yearly, unless the Court shall otherwise direct, upon application to be made from time to time by Mr. Oxenford. Refer it to chambers to be enquired by the chief clerk of the Vice-Chancellor in what manner it is fit and proper to deal with the slave property of the association. The costs of the demurrer and appeal to be costs in the cause.

RUSSIAN IRON.—After the ore itself, the first requisites to the manufacture of iron is an abundance of fuel, and the 2,500,000 acres of peat bogs in Ireland are a magazine of wealth, the value of which cannot be too highly estimated. By aid of the new invention for solidifying peat, a fuel is produced which is much better for smelting-chemical than the pit coal of England. It will produce iron of a finer and purer character. Even in England common cut turf is often raised in the coal waste iron of a superior quality is to be made. The great superiority of the Swedish and Russian iron to that of the English is caused by the circumstances that wood, or "vegetable fuel," is used in its manufacture instead of "mineral fuel."—*Hunt's (New York) Mercantile Magazine.*

GEOLOGY OF AUSTRALASIA.

(FROM A CORRESPONDENT.)

At the Hall of Castlemaine, Victoria, Mr. John Phillips (late of Cornwall), delivered a lecture on geology, the original formation and distribution of the gold deposits, with the deposition of the various strata, and mineral deposits, as found in Australia. The lecturer commenced by stating that Diodorus Siculus and Pausanias Agriicola among the ancients, Dr. Price of the last century, and in our own day Murchison, Ansted, Hopkins, the late Mr. Mengay, and the French and German schools of mines, and his father, who had devoted 50 years to the work, were all unanimous on a theory of the formation of the earth's strata. Supposing, in the first instance, the earth to have been a chaotic solid, and the growth of stratification to have commenced with its ledges and veins, the waters which covered the earth would have produced, by the power of the ocean wave, the paleozoic matter now seen on dry land over two-thirds of the dry surface, and the absence of fossils from this ancient beachy matter is consistent with that early beclouded state of the earth as to light, whose direct impact had not operated on the surface, but which was needful to animation and vegetation. The mechanical power of crystallisation might have caused many points of the strata nearest the surface to protrude, and expansion by such a force would uplift those parts only which had the convexity upwards, and the inverted arches, in a contrary position, could not be so affected—hence dry land and separate waters.

Mr. Phillips then described rocks to be of three sorts—primitive, drift, and volcanic, the two first being considered, in reference to gold beds, opposing the idea of lava or fire having anything to do with them, the lava of more recent occurrence than the sea beach beneath, and the deluge as coming after the volcanic period. The sea-beach, from its siliceous nature, and property of slow conduction, must have protected its concealed gold from the great heat, and any particles of that metal bearing signs of a once molten state must have been accidentally exposed, or thrown up from the interior, while nearly all the gold was either rounded by trituration among grit and sandstone, or slightly retained its crystalline form, just as it had been liberated from its mould *in situ*.

Drift rocks occurred during the land's submersion, as ruins of the first rock, being an incomprehensible heap of primitive rocks, beaten up by the waves of the sea, the hard residue of which, together with the metals, lie on the primitive, or the undisturbed, rock. The ocean in this matter is the great elaborator of the gold beds, having reduced such a mass of primitive rock, and concentrated its once scattered metals into a combined form among comparatively small areas of washing stuff on the face of the primitive rock. Such precipitation of gold resulted from a difference of specific gravity to the waves, the ponderous metals preserving their gravitating course, while lighter substances only were moved backwards and forwards, as may be observed on sea beaches, the fixed rock being sometimes laid bare, and sometimes covered with drift to a depth of several feet. The excessive hardness of some of these conglomerated beaches is not the result of baking by fire, but other sudden indurating causes, familiar to chemists. The burned appearance of the alluvium, red and brown, are the oxides of iron, the result of chemical action, oxygen being supplied by percolation of rain, changing sulphurets into sulphates, which, as soon as formed, being drained off into the sea by solution and luviation, leaves alluvial metal purer than when in its primitive state, and carrying off all together the non-alluvial metals by change and solution, present by oxidation a residuum of red and brown ocheres. Channels and rich bunches of gold, so eagerly sought after, were the result of the form of the bottoms, and their state to retain the disintegrated metal, these hollows and cavities in the ancient rock being the result of abrasion by water, as different portions were hard or soft. Every possible occurrence of gold in beds, distinct from well-formed veins, are referable to the action of the water. Large nuggets are sometimes found alone, because they only can maintain their stand against that current which has removed the smaller pieces into more sheltered recesses. Our present protruding hills are merely the harder strata, capable of resisting such aqueous action; hence every brow and summit presents its backbone of protection, generally of hard quartz.

The arboreal distribution of main ridges, with their minor branching hills, is merely consistent with data observed in the law of crystallisation, the surface of the primitive earth, in common with all other growths from solution, assuming this state. Quartz specimens, and those almost exclusively being gold, have been presumed, from their hardness and power to resist trituration, and softer portions of strata have eliminated most of the gold, it having been rubbed out by attrition. The lecturer then alluded to a theory of Mr. Evan Hopkins, that gold found at the roots of trees is due to chemical action, and asserted that there are other and far more apposite reasons for such results. If, in shallow alluvium, a clump of trees was observed, it would be inferred that beneath them was a hollow channel, or basin, of loose pebbles and debris, where gold was almost sure to have been deposited before trees had grown, the supply of water through the loose drift enabling such trees to attain an unusual growth. A range of honey-suckles, for instance, growing along the side of a hill in these colonies would show that it was capped with an ancient sea-beach, the trees growing at the bottom where the drainage issued. An immense advantage might be taken of this, avoiding deep sinking through lava and hard conglomerate, presuming on the proximity of the roots of these trees to unseen beachy matter, the rationale being that such trees feed and grow best in pebbly ground.

Mr. Phillips then alluded to the origin of gold, and stated that having measured and examined 300 miles of excavation in hard rock, he candidly confessed there were difficulties in establishing any defined theory which he could not get over. Geologists had achieved much, and creditably as to the history of drifted strata, reducing their knowledge to principles of great practical good, and, with himself, referred them all to fluvial or marine action. In 1847 he had sunk a pit, and found gold in the province of Victoria; he was then the announcer of the precious metal, and stated to Sir R. Murchison that it would be found distributed over 300 square miles. The most important question now open to the British capitalist is, whether there is not a great abundance of gold in these drift localities to be got by the erection of powerful pumping machinery.

The basaltic beds of the Australias, India, and other portions of the earth's surface, appeared to the lecturer to proceed from floating marine drift, with terrane matter, during the primitive period lying upon the more ponderous paleozoic deposit. This lighter drift contained the elements needful to fermentation, was thereby thrown into volcanic eruption; hence here and there those craters, or enormous bubbles, above the lava's common surface after partial cooling, the basalt being the earthy slag or residuum, after the expulsion of the gaseous elements. The prevalence observed among these craters of their general outbreak to the south-east may be referable to the subsequent action of a sweeping deluge in that direction, removing one side of them, suggesting to the observer some mysterious power which such outbreak was subject to in that particular direction.

METROPOLITAN LOCAL MANAGEMENT BILL.

TO THE RIGHT HON. AND HON. THE PEERS OF THE UNITED KINGDOM, IN PARLIAMENT ASSEMBLED.

The memorial of FRANKLIN COXWORTHY, author of *Electrical Condition*, humbly sheweth,—

That, leaving humanity out of the question, on data afforded to Lord Palmerston on the 11th July, 1854, the annual loss sustained in the United Kingdom, from the want of a proper system of town drainage and ventilation of sewers, falls little short, if it do not exceed, the sum of *fifty millions sterling*.

That on readily demonstrable principles in natural philosophy, your memorialist framed and submitted to the consideration of the Metropolitan Commissioners of Sewers in 1849, plans for the drainage of the metropolis, which plans were adopted in 1852 (as Mr. Baskett's) by the late Commission, and were unconditionally approved of by Sir W. Cubitt and Mr. Stephenson, in their last joint report to the present Commission.

That the present Commission confesses to having got itself in a "mess," and to having "muddled" affairs from first to last; and by way of simplifying this gigantic and momentous question, Sir B. Hall has lumped it in the above bill, with paving, lighting, &c.

That in this bill, as regards drainage, two great tunnels only are referred to, and where these are to begin and where to terminate does not appear; and the framer is equally silent on the means to be devised by which to prevent the pollution of the Thames, to prevent the choking of these tunnels and deluging all the low lands of the metropolis, for the collection of the filth for agricultural purposes, and for the ventilation of the sewers; yet, in the total absence of information on all these essential points, the House of Commons have passed this utterly impracticable measure, without requiring the slightest explanation from the mover.

Your memorialist, therefore, humbly prays that your lordships will reject this pernicious bill, and frame a more wise one for drainage, based on natural laws, the main objects to be attained being the preservation of rivers and the atmosphere of towns from pollution, and the collection of the filth of towns for agricultural purposes; and that your lordships may long continue the nation's safeguard, your memorialist, as in duty bound, will ever pray.

FRANKLIN COXWORTHY,
Author of *Electrical Condition*.

MINING SPECULATION.—INSTRUCTIVE HISTORY.

THE AUSTRALIAN FREEHOLD GOLD MINING COMPANY.

In the Vice-Chancellor's Court, on Monday and Tuesday, the cause "*CLARK V. ROYALS*," was argued at considerable length, and an elaborate judgment delivered.

In the early part of 1852 a company, under the title of the "Australian Freehold Gold Mining Company," was projected, upon the basis of the "Principle," for the purpose, according to the statements in the prospectus, of commencing mining operations upon an extensive tract of land adjoining Lake Bathurst, in the auriferous district of New South Wales, and directly on the quartz veins, presenting the greatest facilities for mining operations. A prospectus was issued, holding out to shareholders a limitation of liability to the amount of their shares, unquestionable testimony as to the abundance of gold quartz upon the estate, which was sufficient to admit of the most extensive mining operations for half a century at least, while the advantages of the enterprise in such a sphere were such as to render it superfluous to point them out in the "thinking man" and "prudent capitalist." Offices were open in the City, and rules and regulations were drawn up and entered in the note-book. A committee of management was appointed, and shares issued. Several applications were made for shares, and allotments to the extent of 55,353 shares, upon which 1*l.* per share was paid, were made to the different applicants, including the plaintiff, who purchased 395 shares in the adventure. The defendants, the committee of management, had retained for their own benefit 5000 shares, upon which no payment whatever was made, and distributed among the stockbrokers, solicitors, and other officers of the company, 1550 shares, also without payment of 12,500 free shares and 12,500*l.* were delivered by the committee of management to Messrs. Matthews and Knell, as purchase-money for the valuable auriferous tract upon which the operations of the company were to be carried on. The defendants, in the early part of 1853, had also entered into the operation technically known as "rigging the market," by purchasing a large quantity of shares with the funds of the company, for the purpose of raising them to a premium. In the course of the same year sinister rumours had reached this country as to the Lake Bathurst El Dorado, the auriferous quality of which had been treated in the prospectus as left beyond a doubt. The *Sydney Morning Herald* of May, 1853, spoke out plainly as to the fraud that had been practised upon the adventure by Messrs. Matthews and Knell, who had also been concerned in the promotion of a kindred speculation, called the "Lake Bathurst Gold Mining Company," on part of the same estate, also described as "highly auriferous,"—a company, however, which has also obtained an unhappy notoriety. The committee of management had dispatched an agent to Australia to superintend operations, and make a geological survey of their estate. This gentleman had transmitted a report to England, in which he stated that it was an unqualified evidence, supported by forged documents, that the estate was perfectly unauriferous, not worth 200*l.* sterling, with not a building upon it, and 80 out of the 500 acres covered with water, which would not evaporate for five years to come; but that, as soon as the men got round from Melbourne, he was going to take them to the Turon diggings, so that a remittance of gold could be guaranteed by April. The committee of management, notwithstanding this discouraging intelligence, had in January, 1853, issued an advertisement, stating the arrival of their staff in Australia, and that operations would shortly be commenced, with every prospect of success. In December, 1853, a bill was filed by the plaintiff, Mr. Clark, against the defendants, Matthews and Knell, for the purpose of having the purchase deed rescinded, and the 12,500*l.* refunded. No effectual proceedings, however, were taken in this suit until the present year, when at a meeting of the company, held on the 7th of February, a resolution was proposed by the defendant, Mr. Frederick Jones, one of the present committee of management, that the bill should be taken off the file. This resolution was seconded by Mr. Terrell, a shareholder in the company, and the solicitor of Messrs. Matthews and Knell. The shareholders, not having been able to obtain any account of the affairs of the company, had in December, 1853, appointed a committee of investigation, in which the plaintiff was included. Mr. Harding, an accountant, was appointed by this committee to examine the books and report thereon. It appeared from this examination, that the committee of management had received several sums by way of commission upon shares and payments to themselves, which were alleged by the bill to have been unauthorised by the rules of the company, and improperly made. It also appeared that the committee had been in the habit of lending the moneys of the company to each other. At a meeting held on the 8th of January, 1854, Mr. Harding produced his report, and a new committee of management was elected, which included the plaintiff. An advertisement was issued by the new committee, announcing a return of 6*s.* per share to the shareholders, which had been subsequently made, leaving certain balances in the hands of the bankers. At the bi-monthly meeting held in March last, a resolution was proposed that a new committee of management should be elected, with a view to excluding the new members, and re-electing the former ones. This was opposed by the plaintiff and other shareholders, and, after a very stormy discussion, the meeting was adjourned by the chairman, Mr. Ronald, who subsequently held a special general meeting, at which the proposed committee of management was elected, to the exclusion of the plaintiff. The plaintiff had shortly afterwards filed his bill on behalf of himself and all other the shareholders in the company, other than the defendants, who were the original and present committee of management, and now moved for an injunction and receiver.

The defendant, Mr. Ronald, had been cross-examined by the plaintiff, and materially confirmed the statements in the bill.

Mr. Holt and Mr. Roxburgh appeared in support of the motion; Mr. Chaudes, Mr. Daniel, Mr. Bates, and Mr. Hadden appeared for the defendants. Vice-Chancellor Sir W. P. Wood, after observing upon the painful features presented by the case, said that he had been surprised at the proposition attempted to be maintained in argument—that that Court was to measure transactions of this kind by any other principles than those of the highest morality and rectitude. Persons injured by such transactions might, if they thought fit, condone them; but he could not the Court pass over them without the severest reprobation! The case was together of a most singular description, and it was not a little extraordinary that persons filling the position in society of the defendants should be found to have acted as they had done. The company had been started under most unfortunate circumstances at the outset. The defendant, who was principally concerned in promoting the company, did not seem to think that he had committed any impropriety in taking upon himself to enter into a private understanding with Messrs. Matthews and Knell that, if he could procure subscribers to the adventure, he was to receive a bonus of 100*l.* in free shares. Looking at such a transaction with respect to the manager and promoter, the result which matters had taken could not be wondered at. Most truly had it been said, "A gift doth blind the eyes of the wise." Any very strict enquiry as to the value of the property to be purchased could not well have been expected. It was, however, alleged against the defendants that they had the least notion or suspicion that they were being swindled. A prospectus was issued, holding out, as such documents generally did, most sanguine expectations as to the success of the adventure. The public were told that the company was to be formed upon the Coast-book Principle, with a capital of 100,000*l.*, divided into shares of 1*l.* each; that the territory of the company was freehold, certified to abound in gold quartz, under the protection of the colonial laws. A list of directors was appended, many of them of high position in society, and the prospectus went on to detail the advantages to be derived from their investment in this society. It was not unimportant to comment particularly on these statements dilating upon the auriferous quality of the estate, and the expressions of confidence in the directors, which were intended to induce the public to invest in the company. A letter was quoted, which subsequently proved to be forged, that the investigation made left nothing to doubt as to the auriferous quality of the estate. Some general observations followed, extolling the quality of the quartz, especially a description in which no trace of gold could be discovered with the microscope. The public were invited to apply for shares on the faith of this prospectus. However, was said as to any appropriation of shares to the directors for their services, past and future; and, although the operation of the Coast-book Principle might not be very clear, yet, at all events, it was sufficiently understood to have held out no invitation to the subscribers that such a course would be adopted. The plaintiff had obtained shares in the company; and, although it was admitted that he did not sign the Coast-book till May, 1854, yet he received his letter of allotment on the 27th January, 1853—a date important to be noticed, as at that period the terms of his application could only have been in accordance with the prospectus. Certainly, he, as to which tempted any withdrawal of shares by the directors for their own purposes, the prospectus was absolutely silent. A meeting had been held almost simultaneously with the issue of the prospectus, and at which the directors had been authorised to sell the shares of the company, and to receive for them 5000*l.* each, for their past and future services, and then frame an estimate of the expenditure, for gliding those funds which had been thus withdrawn. Could it be contended that the issue of shares being upon the terms of the prospectus, those gentlemen were bound to rise in afterwards meeting together and withdrawing for their own purposes 5000*l.* it was impossible for a court of equity to arrive at a sentence so repugnant to good faith and right dealing. It might be also observed that the Court was left wholly in the dark as to what these services were to which the reward of 5000*l.* was offered. The directors next proceeded to a step, unfortunately not uncommon in these associations, though never to be mentioned in this Court without reprobation—he allowed to be called in the affidavits "rigging the market." Nothing which was more dishonest could prove in the long run successful. The directors had purchased a quantity of shares to raise their price in the market, whereas, instead of raising any *Ad* demand, no one could be found to purchase them. Beyond this they had made no payment for upwards of a year, while they, in the meantime, ought to have seen that the rules were most strictly observed. This act was not in itself of serious consequence, but these little petty appropriations of money were almost more painful to shareholders of larger magnitude. It appeared, too, that these four directors had actually withdrawn 470*l.* as commission for brokerage for these shares, which they had themselves obtained, without the slightest right to appropriate the money. The directors had, in addition, in September, 1853, of the swindle practised upon them with respect to the quality of the land purchased by them, through an Australian newspaper, and the fact that the letter mentioned in the prospectus, and signed by Langley, was a forgery. Proper steps were taken to enquire into the matter, and Messrs. Matthews and Knell, and their solicitor, were summoned to appear; but these gentlemen had used every art to comply with such summons—a reason in itself for further shares and to the directors. In December a letter was received from their agent, containing a considerable cause for alarm, while in January, 1853, the matter is perfectly plain: the directors are awakened from their golden dream, and told distinctly that their property had been sold. The directors, being now informed that all the representations of their property had been untrue, issued an advertisement, in which they told the public that they were going to commence working, with every prospect of success; the most that the Court had told them being, that he hoped to send them a remittance from the Turon diggings. After the utter worthlessness of the former representation was admitted, it was matter of amazement to see the persons whose names were attached to the prospectus satisfied in issuing to the public so prodigious a statement. Any person purchasing shares subsequently to this advertisement would have great reason to complain. His Honour then commented upon the means by the directors to secure the funds of the company, which ought to have been considered by them as a matter of deposit. The report of Harding appeared to state all these circumstances correctly, and, although he could not look at the whole transaction without the greatest regret, yet it was perhaps beneficial for the public that a case like this should be brought before the Court, as they would learn that these proceedings would not be allowed to go on without check. It was admitted that there was no business in the company, and no debts; it appeared, therefore, a case for dividing the management, and then any longer to be intrusted to the present committee of management, who had been involved in the transactions he had so strongly animadverted upon. The plaintiff himself has acted in some respects in a manner not capable of being justified. His Honour commented at considerable length upon the allegations made against the plaintiff, and said that it could not be too strongly impressed upon the minds of those in that capacity, that a trustee could on no account touch the funds of a company, and that he, of all mankind, was utterly precluded from so doing, and the previous sanction of those reporting the contents of his affidavits, and the funds were at present in that safe state in which they ought to remain; the

stone rock; I may presume he declines to do so, since he confines himself wholly to Cornwall. When I recorded that limestone rock contained little or no iron, I stated nothing about what *lozes* in limestone might contain, but what the rock contains in itself: this will explain Mr. Ennor's 13th paragraph. Again, I am made to state that

RIOTS IN SOUTH STAFFORDSHIRE:

38a.—On the 6th of April a long letter appeared in the *Times*, written by a family who sign themselves Charles Wain and Sons, of Midland Works, Tipton, the object of which was, in brief, a description of the miserable condition of the inhabitants of South Staffordshire, and to offer such suggestions to the wisdom of Parliament as would be available in the consideration of the educational bill now pending before Parliament.

In this somewhat anomalous letter the inhabitants of South Staffordshire were divided into two classes, the employers and the employed, which are represented as being, in feelings, sympathies, thoughts, and aspirations, as far asunder as the antipodes. It is gravely affirmed that the employers—coal and iron masters—withdraw their countenances and benign influences from the scenes which have been the origin and support of their princely wealth, luxury, and joyous refinements, leaving behind, unsecured for and unprotected, the men—the colliers, whose skill and labour have so largely contributed to the success of enterprise and capital. After the realisation of princely fortunes, by means of the blood and toil of the neglected collier, the coalmasters retire from the scene; they have no more to do than to order plumes, clear and smokeless skies, purple streams, silvery streams, or the best of horses, and the cause of the feathered minstrel, and place an unapproachable barrier, in the shape of an agent, between them and the unfortunate victims of their wealth and selfish servilements: they seldom or never approach the smelting point.

The employed, or free working colliers, are divided into two classes—the ordinary colliers and butty colliers. The butty colliers are described as so many voracious scavengers, who prey unmercifully upon their less fortunate comrades, by forcing them to commit deeds of intemperance and guilt, in the shape of buying beer and spirits at public-houses, said to kept by the butties, who threaten to discharge the men from their employment if they refuse to follow the course of their wishes. In the whole of the county, I experienced the counties of Nottingham, Derby, and Staffordshire, and Leicester, I never knew nor heard of a butty collier so far forgetting what is due to his fellow-workmen as to be guilty of such base conduct as that described by Messrs. Walker. There may be exceptions, but, as a general rule, the butty colliers are not so intelligent, practical, and best workmen of the colliers.

Although the Committee of Accidents in Coal Mines have placed their veto against the employment of butties, still I am inclined to believe that the coalmasters of the Midland counties will pause before they dispense with the services of this useful class of miners. The ordinary free colliers are divided into two grades. In the lower they are settling, enslave the Englishmen, ignorant as are the negroes of the West Indies, addicted to drunkenness, possessing ample means of educating their children, but painfully neglecting them; their money, though hardly worked for, is easily obtained, they being in such affluent circumstances that no part of the community are better fitted to live and bring up a family respectably, easily earning from 5s. to 6s. 6d. per day, and some as much as 10s. 15s. and 17s. per day of ten hours long. No part of the community, however, lives less respectably, is less educated, or less provident—eight-tenths of them can neither read nor write; when work is brisk, the time from Saturday night to Monday morning is not long enough to spend their money at public-houses or beer-shops.

The rectification of this state of things, if it exist in all the naked deformity Messrs. Walker would fain have us believe, is a problem difficult enough, in all conscience, to engage the close attention and comprehensive abilities of the statesman and Christian philanthropist, and the earnest prayers of the ministers of the "glorious gospel of the blessed God." The great panacea proposed by Messrs. Walker to crush the Hydras exhibited, and place the mining population in a more cheering aspect for the future, is, to remove the cause of the evil to the country, and educate the people. "There may be a few, but very few, indeed, who are so far from being a source of contamination to the Times worthy of consideration, still, on the whole, my impression is, that it conveys to the public mind an incorrect statement and representation of the moral and intellectual endowments of the mining population of England. Is it wise or expedient to denounce the imperial purple, the throne, the altar, and the bench as judges, as immoral, and consequently, dangerous to the best interests of mankind? Is it a consequence of a Nero, a Richard III., a Bonner, a man without mercy or conscience, as Mr. Jeffrey, the usual cause of a nation's wrongs and frailties? If not, as Messrs. Walker's Son, should praise, would it be wise to give the progress of our mining actions before they assume the exalted office of a teacher of our legislators, supporting the government of a class whose characters they are evidently unable to delineate, or even to comprehend. My father, brothers, friends, as well as myself, are alike implicated in the sweeping inductions and condemnations of Messrs. Walker, therefore it is only natural that I should feel sensitively the remarks which they have thought it their duty to make, and use every legitimate effort at my disposal to counteract any unfavourable impressions on the public mind which they are so well calculated to induce:—I have, therefore, thought it my duty to counteract the conclusions drawn to induce:—"which occasioned the publication of Messrs. Walker's letter, still, I must confess my inability to escape the conclusion, that when the moral atmosphere becomes a little turbid, by the necessary perturbations of labour and capital, a certain portion of the middle class fall instinctively for an explanation upon the ignorance and rapacity, as they affirm, of the sons of toil. In making this assertion, I am willing to acknowledge that there are those in the middle and upper classes, who are not so noble and as generous hearts as ever beat in the breast of an Englishman; and who are not so ready to take their own class as the cause of the whole of every section of the community—the colliers and the petty tradesman—be said to the generality of this remark; but, notwithstanding this, there are, also, too many dark and gloomy pictures, which stand in prominent relief, and deface the bright image of every portion of society—the colliers and petty colliers are not peculiar in this respect. Perhaps the class to which Messrs. Walker belong can claim no exemption from the evils to which frail and weak humanity has been subjected since "man's first disobedience." Is it entirely fortuit in man's nature which enables him to escape with an amazing facility the object, when he himself is the conclusion—"thou art the man?"

"O wad some power the giftie gie us
To see ourselves as others see us!
It wad frae mony a blunder free us
And foolish notion."

In the dark picture which has engaged the genius of Messrs. Walker, stands for most the man of toil, represented as "stripped to the skin, and the perspiration pouring off like a stream."

It is then a great moral delinquency on the part of this man, whose youthful trials have been entirely neglected, to serve the purposes of unfeeling capitalists, to follow the instincts of his exhausted nature, and go to the first place where he can find the elements which appear to restore to vigour an almost worn out and distracted constitution! I know it is wrong to do this, and that the benefit is illusory; but still I cannot help thinking the circumstances of the man ought to make up for the consequences of an imprudent practice, and also to induce some more judicious course. He is, in fact, an extreme case, and one such as Messrs. Walker to speak or write of his misdeeds, is, in fact, an extreme case, ought set down in malice." Then must they say of the much-neglected collier, who was created by the same High Intelligence, with the same hopes, feelings, and aspirations, and future destiny, as ourselves; but, unfortunately without our privileges, applying mental culture and physical comforts, he is doomed by the cruel hand of Fate to a slavery more hopeless than Russian serfdom, or the negro slave-planters of the tropics—being sparingly supplied with the necessities of life, and easily wrought upon by the most extreme, by designing demagogues, and in an unguarded hour he raises his hand in the same spirit as the English employers, and in this highly incensed mood feels half inclined to strike them to the ground; but hearing a still, small voice within, admonishing him to duty, his rebellious hands fall, and that heart which a few minutes before was hard and determined in the pursuit of vengeance, is now melted into softness, and ready to forgive even his employers.

It is gratifying to know that there are kind friends in South Staffordshire who exercise Christian charity and benevolence towards suffering humanity, and look with a sympathetic eye on the frailties of the colliers of this district. Such, for instance, are the "Friend to Colliers" (*Times*, April 11), "Walker and Co.," (*Times*, April 12), the Rev. Charles Girdlestone, Walsingham, Staffordshire, (*Times*, April 13), and several others. The letters of these noble-hearted Christians, and the false statements and inferences of Messrs. Walker, tend to place the existence of that gulph which separates the man from his master, and condemn it, as fraught with many and varied evils. I have read these letters with extreme interest and gratification, and I embrace this opportunity to tender my sincere thanks to those gentlemen for their kind advocacy on behalf of my fellow-workmen. Colliers have many hardships to contend with in their transit through life. The writer of this letter has been, for several weeks at a time, without seeing his family, except on a Sunday, and not always then. That they are in sufficient circumstances, and able to bring up a family respectably, and getting their money earned, are assertions so glaringly false, that no man in his senses would give the slightest attention to them. The dangers and casualties are numerous and heartrending, could I merely describe painful scenes, in which families have had to mourn the loss of their most dear; but I will suffice for the present to quote one of the most distressing cases I ever remember to have heard of, from the letter of a noble-hearted friend from South Staffordshire, on April 11.

[illegible][illegible]

A hero perish, or a sparrow fall.¹⁹

If it be true that the colliers of South Staffordshire are more prodigal, less studious of domestic economy, less actuated by a sense of religious obligations, than those of other mining districts, there is one fact which, I think, will partly explain the reason of such a sad state of things: it is this. Since my recollection, and for many years before, it has been necessary for the colliers of Nottingham, Derby, and Leicester, possessing unquiet spirits, and a wandering disposition, to be sent to the neighbourhood, and repair to South Staffordshire, where they could readily obtain work, notwithstanding the ban under which they might be suffering. The danger of the thick coal work, and consequent loss of life, renders this at all times a place of refuge; hence the mining population about Bilston is not of that permanent character which is observed in other localities, and, therefore, less subject to the influences of local institutions, and the means of moral and religious improvement. It is lamentable to think upon, that the means now adopted to stem the torrent of depopulation, is no more in comparison than a feather placed on the silver crest of the wave to stop the advance of the rolling tide. The subject of prizes, however, is presenting a cheering aspect; and I do hope that the coal and iron masters of South Staffordshire will see their interest in promoting the education of the colliers, and stimulating them to an honest and industrious career, by elevating intelligence and good conduct to positions of trust and responsibility. Most assuredly, the moral and intellectual degradation, the immorality of a workman leaving his labour, after perishing for ten hours, and going to a public-house to take a few glasses of beer, perhaps a little more than wisdom would dictate. I am not at liberty to call this judicious on the part of the uneducated workman; but, I ask, what can be said in extenuation of the educated coal and iron masters, who, possessing ample means, yet stand aloof from helping to raise their fellow-miners from their present state of moral and intellectual degradation which must inevitably be ruinous to both body and soul?

If there be, on this side of Hades, or on the sulphurous throne of Pluto, one moral monstrosity more hideous and revolting than another, it is the picture of the South Staffordshire capitalists, enveloped in every luxury the Indies can supply, gorgeous equipages and princely palaces, with every earthly appliance that gold can procure, standing heedlessly by, without lending a helping hand to the collier, the miner of the poor, the man who has risked his life and limbs in the dark and stifling bowels of the earth, for his own perdition. "Who is my neighbour?" He that shows mercy and charity was never more applicable to the priest and Levite than to these heartless capitalists.

I am well aware there are kind and generous hearts amongst these capitalists, and I hope the number will ere long be greatly multiplied. The circumstance, however, of there not being one public man of intelligence, social position, and wealth, in South Staffordshire, who could stand before the misguided colliers with confidence and moral authority, to tell them that the course in which they are pursuing is wrong, and to urge, as a counterpoise, the claims of justice, of equity, of common sense, and religion, alike condemn, is a great fault in the legal constitution, but with the highest significance. The strikes might have been prevented if the masters understood the sympathies of the colliers, who will do almost anything in return for kindness, but obstinate in the extreme, as a Saxon, by coercion. It was not the distant and accomplished St. Clare, nor the pharisaical uprightness of Ophelia, that could correct and permanently influence the conduct of the untutored Topsy and Dodo, but the mother, the sister, the wife, the friend, the neighbour, the man, the woman, the father, or mother, or friends—because you've been a poor abused child.

In conclusion, allow me to remind the coal and iron masters that the mild and inoffensive results of the riots in South Staffordshire were not the productions of the policeman's truncheon, nor of the glittering bayonets of the militia and yeomanry, but of the practical good sense of the vitally interested colliers, who know they are taking wrong steps to redress the evils of which they complain, by acting contrary to the law, and the rights of the State. Can it be wondered that the Government, who the cannon's mouth would deliver a *Saxxon* from the prosecution of his designs that moment he perceives and feels convinced he is pursuing the right path, in the right way, to the object of his constant meditations.—*May 1.*

COAL MINER.

PRACTICAL MINING—NOTES ON MR. ENNOR'S LETTERS.—

No. III.

Sir,—I am sorry to see Mr. Ennor betraying such a restive temper when opposed in his "facts and theories." If I am incorrect, he ought to show me the points of error, and not splash sentences at me without reason or direct meaning. Surely he cannot be so egotistical as to believe himself without a little of the leaven of error; and that at sometimes or other one or more of his senses have not played truant to him. A perfect man is a fearful image to contemplate; but if Mr. Ennor entertains this opinion of himself, he may rest assured that the world will hold a different one. For his better satisfaction, I may inform him that we are unknown to each other, and although I suspect myself many years younger than he, yet, I trust, to be found quite as desirous of arriving at truth, and of searching into the unexplored storehouse of Nature, without displaying boisterous presumption, or attempting to embellish igno-

The animus which Mr. Ennor shows against scientific men displays more rashness than intelligence, for he must know that even his favourite ideas, to be at all useful, must be generalised into a science, and that some kind of science is *a priori* to practice. Let me tell him, in chemistry there is no "essence" to be known: the science of chemistry, so far as it has been developed, is always true to itself; and if discrepancies are made by its professors, it is through want of ability in them, and not because the science is faulty. Doubtless there are charlatans and cheap quacks associated with abstract science, as there may be in mining: the more the pity, since the disposition of such men is to make the greatest noise, and continue their din so long as to arrest the attention of the ignorant, and command support from persons to whose ob-

Men of pure science have no special dispensation against committing errors; and when they pass beyond their acquirements or knowledge they usually fail to succeed in mining, science and practice, thoroughly combined, are necessary; and had we more of the former with the "keen-eyed Practicals" and less of the pride and conceit of the latter, mining, and its practices, would scarcely have been the same rude art now as it is the days of Agricola, and for centuries previously. It is to Mr. Ennor and his gentlemanly "Practicals" that I refer, that I commend, that I praise, and that I thank; for they, honest agents who fortunately form the majority of those conducting our mines in Mr. Ennor's letter he says—"Anonymous writers never bring out their subject in a gentlemanly way"—granted; but Mr. Ennor further says, "for once he will follow them up in their own strain," that is in an ungentlemanly manner. Now, if I really will make Mr. Ennor confess that he is not a gentleman, or that he writes ungentlemanly, then he is not consistent with peculiar feelings of pity, and surely deserves consideration for his depravity.

The attack on scientific men is made through the Torbane-hill case, which at the same time involved the discussion of a new mineral. Mr. Ennor may not know that the chemists did not differ on the ground of the structure of coal, as viewed under the microscope, which determines its *scientific* character, but they differ on *practical* grounds. The case is a case of the *practical* character of science, and not of the *scientific* character. One can scarcely believe such an absurd return as blende was made, when it was mica, or iron, unless the said "first-rate chemist" was one of those self-educated gentlemen whose presumption and ignorance equally qualifies them for the science of medicine or killing tape-worms, to rendering reports on mines, or directing their management. Men of repute, having some status in the art of assaying and metallurgy, and who are not likely to be deceived by the blundering of any of the common-sense metallurgists any, will render Mr. Ennor correct results.

I do not wish string up sentences against Mr. Ennor which can only apply to himself, but since he has, by repeated communications, become a prominent correspondent to your Journal, and by many may be regarded as a teacher, simply from the fact that he has been so long a contributor, I will not refrain from showing, in the sequence of this letter, that when confronted it is his task to misquote his antagonist, and to convert, or shift, the premises of a subject to suit his object. Now, does Mr. Ennor find one sentence in my letter in which I write of "having reached the climax of Nature's eternal process," or did I intimate that "branches of the tree of life are cut off, and the fruit is lost, &c."

The hilarious manner in which Mr. Ennor patronises his "keen-eyed Practicalists" is quite refreshing, and one would really suppose that he could announce something more of them than a general character, which is open to doubt and contradiction.

In a lecture delivered by Mr. Hunt, at the Society of Arts, April 19th, he says—"Hundreds of tons of the gray sulphuret of copper have been thrown over the cliffs of the western shores of the Atlantic Ocean, and hedges have been built with coppes ore of twice the general value of the ordinary copper pyrites, and immense masses of the metal have been cast away." Mr. Tennant, in the discussion which followed, stated, "In Cornwall—"I showed the captain two specimens of metal, and asked him what they were; he replied much as follows:—'These are both tin'; I then told him that they were not tin, but copper; he said, 'They are both different'; he would not tell the difference between tungsten and oxides of tin." Mr. G. Henwood has also written on this subject, page 89, and states, "It is astonishing that in this country metallurgy was neglected, that abundance of silver ores have been raised and thrown away as worthless. In a work recently published, entitled *Cornwall, its Mines and Minerals*, page 29, occurs the following passage:—"Some rare varieties of common minerals were found at the Wherry Mine; among others, some of valuable ore, such as cobalt, iron, manganese, and arsenic, and graphite, and loss." Also, at page 216—"At the Mucroca Mines, Ireland, a mineral of granulated metallic appearance was found, which was rejected as cumbersome rubbish; it became known afterwards that this neglected mineral was an ore of cobalt."

Another eminent authority, Sir H. De la Beche, in the Records of the School Mines, Vol. I., page 7, says—"The copper mines of Scotland were worked for three centuries, until about 1700, when the Duke of Argyll's Scottish Copper Company was formed, and the time the works were abandoned, as the copper found in the ores was not sufficient abundant to pay for the cost of obtaining it. An analysis of them gave—"11 parts of nickel; other portions have been found still richer in this metal, and the"

Again, in Germany thousands of pounds worth of nickel ore (kupfernickel) was thrown away, the Prussians considering it valueless; a scientific man put his attention to it, and it now forms a most productive and valuable source of industry. Red soil, by far the most valuable ore of zinc, has been thrown away for iron. At the same time, the zinc ore of lead has been considered valueless, because supposed to be calamine. Can multiply other cases of like kind to fill columns of your paper; and if these are not conclusive enough against the incompetency of Mr. Ennor's "keen-eyed" inspectors, I will send you a long letter to instance further proofs.

As a proof of the power of scientific practical men to overcome difficulties, if allowed to follow their own plans, unfettered by Mr. Enner's "keep-eyed Practicals," I mention that at Schemnitz, in Hungary, gold ore containing only 4 cws. of gold per 30 tons of stuff are profitably treated, or the astonishing small quantity of 1 lb. 5-8 gr. of gold per ton. Without practical, well-understood science results in this could never have been obtained, and a branch of industry employing thousands would never have been formed.

To give Mr. Enner an opportunity of testing the skill of his "keep-eyed Practicals" as well as that of himself, I shall feel a pleasure in sending him 20 valuable minerals worth, at least, 10¢. per ton, 10 of which he will be unable to detect (provided he does not use scientific means nor the blow-pipe), on condition that he pays the small expense of transit. Next, as to the time which is required to test minerals in a scientific way, I would beg to inform Mr. Enner that with a blow-pipe, and a few reagents, any ordinary scientific manipulator can, in less than one minute, detect either or all of the 20 minerals sent him. The last testimony I have to give is that, in fact, this is a feat which a hundred years of a "keep-eyed Practical's" life would fail in accomplishing. And I can inform Mr. Enner further, that traces, too small to be seen by the naked eye, of manganese, cobalt, copper, iron, and nickel, can be as readily detected by this means as large masses.

Mr. Enner does not follow me into the lead-producing districts situated in the line

Mr. Ennor's tirade against geology is like the old tale of the dog barking at the moon.

thinking thereby to cause it to cease from shining. The moon, however much barked at, steadily gives its light, and so will geological truths ultimately prevail, in spite of the rant and "gammon" of "keen-eyed Practicals."

With reference to many other points in Mr. Ennor's letter, it would be idle to occupy space in your Journal by noticing them, since they involve a process of investigation and reasoning not familiar to him; and in any of his subsequent communications he will be sure to make his views on these points more fully and concretely known. His letter, however, is so full of errors of fact, and of such a bad character, and made to form erroneous conclusions. In this letter my object has been to touch on the dogmatizing disposition of Mr. Ennor, and to show the inconsistency of claiming for his "keen-eyed Practicals" that excellency which he ascribes to them. Let it be understood that I do not include in my remarks those practical perseverers in the cause who are justly and deservedly esteemed, and so highly honorable both to themselves and this country.

Theory, science, as practice, may be imperfect in themselves, but each is deserving of the highest respect and cultivation; and he who combines the three in a solid manner, reasons well, concludes soundly therefrom, and knows how to employ the results of his reasoning and conclusions for the cause of truth and real progress to the world, is a man who fits after shallow and fantastic theories of deliverance and of the operations therefrom. I am as anxious as Mr. Ennor to prove all things, and to hold fast that which is good; and at all times it will afford me pleasure to derive real information from him, or to find him untravelling any difficulty, or advancing matter, to improve our mining practice or its economics.

G. D.
Lower Mills

 THE EARTH, AND ITS FORMATIONS

Sir,—My last I closed with remarks to "G. D." I shall now pass him for awhile, and attempt to show my own views as to the earth, and its formations, with the working laws of minerals, lodes, &c., and which every man has a right to do, supposing them all to be governed by the philosophy of common sense, working by laws and principles. Then how shall we attain a knowledge of these working laws? I might say that one in a thousand of them come out by accident, and ten in a thousand by chemical analysis, but the majority will remain to be discovered by the watchful practical man. But beyond that, my subject, I feel I cannot notice an occurrence which took place during one of my recent visits to the Rand, viz., the discovery of a

A mine agent of some standing, who is often employed by London gentlemen to accompany them in their mining tours, happened to be staying at the same house. I was pressed much to join their company, and, after attending to my evening's work I did so; but I needed not the eyes of Argus to discover their designs. Within a quarter of an hour, I had the question put to me point blank by their agent—Did I think I knew more, or even so much, of mining as he did? Any one must suppose that a single individual, on joining a company, picked for the purpose, felt awkwardly out of place, and was naturally reticent, but still I decided on letting him run his course, until he found the end of his rope. When I asked him to turn the dip of all the lodolites in the last five mines he had surveyed? On his doing so, I requested him to tell me of what consisted the stratification, with its dip, cleavage, and cross-heads? This finished him; he could only tell me that the stratification was either granite or killas. The other questions he could not answer; he could not even tell me if the lode ran north or south of east. He said, these things were of no service, as they had nothing to do with forming ores in lodolites. I then stated how it was found to act in all the productive mines in the two western counties. In reply, he said that I acted unfairly by going into productive mines, and taking notes after the mine was laid open. Could he not have done so, and then taken such a sample as he gave me of the mine, and, with effect, without endeavouring to ascertain the cause? If, then, he derided me, I am confident a person cannot be too watchful, if he wishes to pry into Nature's laws. I know these remarks will be taken advantage of, like many others which have thrown out, by my brother chips.

In returning to my subject, I would first remark that the Creator, in his all-wise works, has formed them all beautifully mechanical. To better explain it, I divide them into three parts—first, the planetary, or heavenly bodies; secondly, the atmosphere, the surface waters, and all that move therein; thirdly, the earth, which appears to be the fulcrum or prime mover of all the latter portions of creation.

The earth, whermost formed, contained a certain number of substances of a certain bulk and weight, and set to work under given laws, which caused it to be a place of generation and corruption, of increase and decrease, of youth and oldness, of idleness, but of active life. Working by this given law, the young thrive and grow and the old wither and die. So it begun; so it will continue to the end of time. No single substance increases or decreases. Substances amalgamate, and even for mountains, and appear to form new compounds; but, like all creation, they only change their form, while the substance remains the same. Some substances increase, some decrease, and the growing increases. Every denying substance is food, which generates or supports life in some other rising race or species, so beautifully arranged

I think I need not use further argument on these subjects, as every sane man must see them all taking place. Although he is too short-lived to see the mountains change their places, he may daily see them changing their character as they grow towards their natural home. He is even led to call them decomposing mountains of granite or elvan, or a transition of granite into slate or schist, admitting secondary formations. Then, I ask, what are secondary formations more than the dying aiding the living in keeping up Nature's perpetual motion? What could aid heaves in lodges but the growth of one portion of rock, and the decay of another. Lodges are to the earth, as I have before stated, just what the veins and arteries are to man—all starting from a fulcrum, they are the life-strings and railways of the earth; they aid in the growth and decay of stratification; they are ever attracting the materials of life, and carrying it through the earth—in fact, they are constant underground channels.

In my comments, I will not follow the exponents of the igneous theory, as I have ever considered it too absurd for the age in which we live. The earth from the first was beautifully formed, and never required re-melting. I leave this theory open to its more staunch followers, to bring against me as an after subject.

In my next, I will endeavour to show that all is perpetual motion : the earth's station, and the wreck of Nature, are sufficient to show that it must be so. In that case your readers will excuse me when I say that man should first study Nature, taking the course of ages to be his guide, and then attempt to improve it, as he may, to his own use. With this view, I come before you as a discerning public. I call their attention to minerals, and every other substance, passing through the lower strata of the earth, either in aqueous or gaseous substances. They crystallise and are coaxed when they reach the influence of the oxygen of the air. Secondly, why rocks have the greatest affinity to attract, and cause them to crystallise and become solid, and what is the cause of this? I will endeavour to show the cause of this. What succeeds them? Do the succeeding substances act as an acid, and destroy the first? or do they act as a base, and make way for themselves! — *Wheatcombe, April 30.* N. ESTLIN.

X OBSERVATIONS ON MINING

Six.—I was much pleased some time since, on reading the paper on "Mining Devon and Cornwall," from the pen of Capt. C. Thomas, of Dolcoath Mine. It will be remembered that his remarks referred to the geological and mineralogical characters of the rocks which have been found most productive of metallic ores. From some observations which I have made, I have come to the same conclusion with Capt. Thomas, though on somewhat different grounds, "that the results of mining operations in a specific locality may be anticipated with a great degree of probability."

In offering a few remarks for the consideration of the scientific and practical mind, I wish it to be fully understood that my object is, not to cavil at the assertions or conclusions of others; but merely to suggest an idea, which although at first sight it may seem illusory, yet, when fully investigated, may lead to great practical results.

In entering on this subject, I shall not attempt to advance an opinion on the abstract question, whether the materials which compose the globe we inhabit existed prior to the Mosaic account of the Creation; and that then, at the mandate of the Creator, earth, air, fire, and water, were separated into their respective elements, and the solid, the fluid, the gaseous and aqueous parts, at the fiat of the Great Eternal, came from moment to moment into existence, and completed the "great terrestrial ball"—but what I want to show is that, while admitting that the globe was perfect in all its parts, that Nature has been developing its hidden properties and perfections in all their manifoldness, and that the globe is now in a state of transition, in this fact, there has been a diversified only on its surface but also in the deeper mije.

It would be foreign to my present purpose to enumerate many of the various ways in which Nature works in completing the designs of the Creator; but I shall confine myself at present to the object I have in view, viz., to throw some light, if possible, upon the origin of the human race. I shall not, however, attempt to determine, or enquire first, whether the ores found in lodes were an original formation, or a deposit subsequent to the Creation. It has been thought by some that ores constituted a part of the globe itself—that at the Creation they were placed in the position in which they are now found. Others suppose that they were thrown up from the centre of the globe by a great convulsion of nature, while some imagine that their accumulation may have been effected by magnetic attraction.

I shall not try to refute any hypothesis, only by endeavouring to establish my own, which is that the ores are diffused in the soil, and in the different strata of the earth, and that by percolation they are separated from the soil, and that water is the solvent, and the solvent, or by which they are conveyed into the veins.

As a proof of this, I would observe first, that it is generally found when the miner discovers the lode, he at the same time cuts the spring, and finds water flowing into the lode. The water I conceive is the channel whence the ore proceeds, and the water is the solvent, and the solvent, or by which they are conveyed into the veins.

The value of the lode depends. This I think will be manifest from the fact that many lodes are out which are not worth working, while others are rich in ore, and return a dividend to the adventurers. The inference is, in the one case comparatively little water is diffused in the ground through which the water passes while in the other case it is rich with the aquifer.

I find also from practical miners, that while following the course of the lode it sometimes happens that they come to what is termed a heave, or shift,—in this instance it is frequently the case, that in consequence of the course of the water being obstructed, a larger quantity of ore is found here than in the general course of the lode, and, moreover, the water being diverted into another channel, veins of ore are found in the hollows, or spaces, where the water finds an outlet.

Another corroboration of the foregoing idea is, that the practical miner when lode is cut, does not always expect to get a good mine, until the shaft is sunk the level of the river or valley below it. The reason, I think is obvious, from fact, that the water no longer finding an outlet to the surface, passes into the lows and fissures of the earth, and ultimately into the lode, carrying with it the

I think it will be seen, by referring to Capt. Thomas's remarks, that he agrees with me in his opinion in this ledge as a deposit, and that the ore proceeded from some locality in the rock in the locality where the ledge is found. He says, "the thin granite which has been found to be productive, although varied in its structure and composition in different localities, may be described as follows:—Fracture rough and irregular, very jointy, frequently containing hornblende." He goes on to say, "localities are some of the outcrops of granite districts, and the hollows between the hills." Now, may it not be inferred from these observations that metallic ores are a component part of the rocks themselves; and if so, is not the idea in perfect accordance with what has been advanced relative to their diffusion in the earth? For the rocks are decomposed, so would their properties be given out, actually as parts described as "fracture rough and regular, very jointy, and the thin granite is those which are most exposed to the atmospheric action, with the additional circumstance of the water allowing the water a free passage.

In a quotation used by Capt. Thomas from the remarks of Mr. Henwood, it is said that "courses of ore found in granite, or in clay-slate, or green-stone near the granite almost always die from the granite. But when the dip has been towards the granite

primitive granite, as soon as it is reached a failure invariably and immediately takes place. Here is another corroboration of the idea that the dip being from the granite facilitates the passage of the water, by conducting it into a more porous stratum of ground—while on the contrary, if the dip has been towards the granite, as soon as it is reached, the primitive rock being so closely imbedded, precludes the possibility of its passage, and consequently no further deposit of ore is found.

Whether by disintegration and decomposition of the rocks caused by atmospheric action, or by the action of the water, either in a state of solution or in minute particles, or whether by chemical combination a new compound is formed, there must be some active agent to conduct them into the situation in which they are found. If the polarity of the earth's magnetism and magnetic and galvanic currents be the cause of these deposits, as some have asserted, other phenomena, I think, would be seen than those yet observed. I cannot, therefore, help remarking here, that if magnetism be insisted on as the agent in the accumulation of ores, and that the North Pole is attractive, and the South repulsive, the magnetic current must pass in a contrary direction to the dip of the strata of rock in many localities, the dip being frequently from about north or north-east to south or south-west; and if in this instance the attraction towards the north be admitted, it must be assumed that the ore emanate from the lower strata, instead of the crust of the globe, otherwise the electric current must pass in a zig-zag course, or through the solid rock; taking the ore with it until it arrives at the lode. There would also be jets of pure or malleable metal frequently falling into the mine, while the miners are at work; and if a magnetic current sufficiently strong to effect the transit of the ores were admitted, the miner would be in danger of becoming paralysed while following his daily employment. And I think it is not unlikely but that in some instances we might have heavy metal jets and jets of water, or jets of fire, or jets of electricity, or jets of the earth's crust, instead of which may be cited, as at Southampton, in the grounds of the Crystal Palace, at Sydenham, and also in Paris, where they are under the necessity of adopting the Artesian system of boring to the depth of several hundred feet to procure water. But in the other instance where ores are found, as it has been already stated, water is an agent always at work, bringing with it (as I conceive) the minute particles of ore as they are set at liberty, or in any other way prepared into the lode, where by affinity attraction, and cohesion, they are formed into a solid mass.

An effect of the agency of water may be noticed also in some of the caverns of the earth, where stalactites and other incrustations are found; evidently showing that while the water has been oozing through the crevices of the rock, the mineral particles have been separated from it, and form these phenomena. It may be noticed likewise in cases of petrification. Although water is composed (as chemists inform us) of two pure elements, oxygen and hydrogen, yet there are numerous instances where it is impregnated with other substances, whereby, animals, reptiles, and insects (a variety of which may be seen in the British Museum and other places), are rendered as hard as flint itself, while their bodies are preserved in their original position. I think it is not unlikely that the presence of minerals in the stalk of wheat, and in the Spas of Harrogate and Cheltenham, all tending to show that Nature is ever active in her operations; and is also, in my opinion, a strong corroboration of the correctness of the theory, that ores and minerals are diffused in the different stratum of the earth, and that water is the grand agent in this respect in completing or perfecting the designs of the Creator.

The great desideratum now is, where and how these deposits are to be found. Capt. Thomas has already pointed out the character of the rocks which are productive of ore, which, from his experience in mining operations may be of great importance in this matter. Yet as he instances that the lodes in some of the varieties of granite have been found to be productive of copper and tin, whilst others have been unproductive, or nearly so, it may not be amiss to submit another test, whereby the miner may be assisted in arriving at a somewhat safe conclusion.

First, then, I would observe that the operations of the miner should commence towards the lower part of the range of rocks which indicate the presence of ore. Secondly, that the dip and lamina of the strata should be carefully examined. Thirdly, as soon as the lode was discovered, the water flowing into it should be analysed by a competent person, in order to ascertain whether the water is carrying with it the particles of the water of other mines, whether productive or otherwise, a pretty safe conclusion would be arrived at. If you think the above remarks are worthy the notice of the mining public, their insertion in your paper will oblige yours truly,

Henagar, Cornwall, March 17.

GEORGE STEPHENS.

P. S.—Since writing the above, an idea has presented itself, that although metallic ores, either in minute particles or in solution, should not be found on analysis of the water to any great extent, yet it is possible that the base of ores may be present in abundance. We have already observed that water may be impregnated with different properties—is it not probable then, that when these properties come in contact in the lode a chemical combination may take place, and combination be effected, just as it is by artificial means in the laboratory, and thereby a new compound may be formed, and whence may proceed the heat by which the gossan is produced?—G. S.

LIMITED LIABILITY OF SHAREHOLDERS.

RESPECTED FRIEND.—Your correspondent, "One who fears the Cost-book System," sees no difficulty in fixing a capital for working a mine, and, if more be needed, issuing additional shares. He is not aware that the taking up new shares is optional on the part of original shareholders, and that such of them as refuse to take any can still claim (and some have done so) their original share of the profits, notwithstanding that such profits are the result of the additional capital? And, as to limiting the liability of shareholders to a fixed capital, the liability under the Cost-book System is much more restricted, for a shareholder can give up his shares whenever he pleases, on paying his proportion of expenses to the time of withdrawal, and the like proportion of the partnership property will be paid him afterwards, lessening by so much the loss on his shares. This privilege of relinquishment seems little thought of by the advocates of limited liability, but in practice it works more satisfactorily than I believe would any plan of fixing a sum per share, and giving power to make calls up to that amount, whether the shareholder wished to continue his shares or not.

Your correspondent states that the Cost-book System enables committees to profit largely, by causing fluctuations in the price of shares. I am afraid that, if committees or managers were empowered to issue shares at will, and to call up the shares, no alteration of system can prevent it. Where there is a will to do wrong there will generally be a way, whatever regulations may be adopted.

But your correspondent's principal objection to the existing system seems to be the liability of shareholders to be sued on their refusing to pay calls. And where is the hardship of this? Let a defaulting shareholder consider who has most cause to complain, he himself, or the miner and merchant? The miner has worked for the shareholder, and the latter, by refusing to pay calls, refuses the labourer his wages. The merchant has supplied tools, candles, &c., for the miner, depending on being paid at the usual time, but in the instant he is refused to the detriment of his business.

I have never myself supplied goods to miners, or derived any benefit from such supplies by others, and therefore speak disinterestedly when I say, as the result of my experience, that Cornish merchants rarely give just ground for complaint, either as to suing any shareholders but such as are known defaulters, or with respect to overcharge in prices, or being too pressing for payment. They are sometimes kept out of their money a most unreasonable time, and should they at length proceed at law against a shareholder more able than willing to pay his calls, loud complaints may be anticipated, and in the instant he is refused to the detriment of his business. When parties have been induced by false representations to purchase shares and incur liabilities, to their serious injury, one can but feel for them; but it has been my lot to meet with so much fencing and manoeuvring to avoid payment of calls by parties who all the while have been waiting to profit by the miners' labour, paid for by others, that I plead guilty to feeling little sympathy with defaulters as a class. In conclusion, without being so unwise as to think the cost-book, or any other mercantile system, incapable of improvement, I repeat the opinion that to oblige mining companies to register, or incorporate, or to restrict the capital to any given amount, or to make the trustees or other officers of the company (who must be paid accordingly) subject to the liabilities now falling on the shareholders at large, or to abolish personal liability altogether in respect of labour and goods supplied to mines, or to do away with the present system of resigning shares at will, would each and all be found changes for the worse.

I had hoped that before now some one of our practitioners in the Vice-Warden's Court would have published a digest of the decisions in that court, which would have given a more just idea than generally prevails of what the cost-book system really is. I think that the Cost-book System really is, and of their practical working.

Littleham, 24th of fourth month.

EDWARD A. CROUCH.

ERRATA.—In my letter inserted in the Journal of the 7th inst., in the fifth paragraph, instead of "with the exception of the license the company also expires," it should have been "with the expiration of the license the company also expires." Also, in the eighth paragraph, instead of "the materials were of sufficient value might continue available," read "where of sufficient value, &c."

GOLD MINES—AT HOME AND ABROAD.

SIR.—As there are numerous gold mining companies who attempt to carry out their undertakings severally in England, Australia, and California, may it not be interesting for the general principle involved—whether gold mining companies can become commercially remunerative—to ascertain whether it would not be more desirable to establish first the fact, by experience and practice at home, that gold can be obtained from auriferous quartz, &c., worked on an extensive scale, in the quantity indicated by the analysis, or nearly so, before hurrying either to Australia or California, where labour and materials are more expensive than elsewhere, and machinery has to be sent out at an enormous cost, and up to the present has generally met with the fate of that of the British Australian Gold Company? I do not bring this subject forward either as a miner or a chemist, but as a financialist, and common sense would appear to suggest that a principle ought to be developed in the cheapest market, and in the midst of the talent of the nation; and where so proper a spot as the country of the experimentalists—more so where Nature herself has provided some of the very materials at their own door, in the shape of the auriferous quartz veins of Wales? It is true that the English Australian and California gold companies were started before the Welsh quartz had attracted attention, but if it is thought worth while still to prosecute, more especially the Australian companies, would it be judicious or not to ascertain first what peculiar machinery and process of extraction would really carry out the object desired?

The difficulty does not appear to rest with the quantity of gold contained by the quartz or soil, but with the systems adopted to extract it, all of which have failed more or less hitherto, and the problem remains, *de facto*, unsolved. I recur, therefore, to the cost of the experiments made by the various gold companies, as up to the present they can hardly be termed anything more, and regard with pain their ruined financial positions. The promoters of these companies are, perhaps, more to blame than the present shareholders, who, Englishmen-like, do not desire to give in as long as there remains one shilling to be spent. But will they eventually obtain their reward, if they continue to make their experiments 13,000 miles, at least, away from home, with all the disadvantages of ruinously expensive labour, materials, and machinery? Partly from your valuable Journal, and partly from private information, I learn that several of the Welsh gold companies are steadily proceeding with their experiments, and in the case of the Red Dragon Company, in Merionethshire, about 9½ ozs. have been obtained out of about 24 tons of quartz. Although not obtained at a commercially remunerative price, yet the parties look forward to better success at the next experiment with a similar quantity, through the supposed improvements that are being attempted in the machinery and process of extraction. Would it be instructive or not to contrast the cost of the experiments made and making in Wales with those made and making in Australia? To me the results would appear to be the same that both parties are endeavouring to obtain—the only difference, the cost of such experiments. It is for the shareholders in the Australian gold companies to consider whether they will continue their experiments at a maximum or minimum cost. I may be wrong in the view I take, if so, I am open to conviction; but my humble opinion is, that if the several companies were to combine for the purpose of perfecting the machinery and process for obtaining the gold from the auriferous quartz at home, the result might be probably arrived at sooner, and at very much less cost, than if they continued to spend (perhaps "waste" is more expressive) their money in Aus-

tralia, chiefly for the benefit of the parties pretending to have already discovered the best process for extracting the precious metal from the rock or soil of that country. As companies, they will require to work at all times on a large scale to produce sufficiently remunerative returns; therefore experiments on an equally extensive scale only can prove and test the correctness of any data brought forward in respect of the efficiency of the machinery and process employed to extract the gold, as well as to the value of the soil to be worked; and it may, after all, perhaps, be found that a considerable difference will always exist between the assay value and the commercial value of any and every auriferous soil or rock.

So many hundreds of thousands of pounds having already been spent, surely it would be more economical to send over parcels of several hundreds of tons each of auriferous soil and quartz, from each of the properties of those Australian companies which intend to continue their adventures, for the purpose of perfecting their machines and processes here, until such times as they can depend upon them as the means of obtaining the rewards of their patience and perseverance. As regards the extracting of gold from quartz, it might, perhaps, suffice to perfect the machinery, &c., by experiments with the Welsh quartz, as the question does not rest, perhaps, with the degree of richness of the auriferous quartz to be worked, so much as with the power to extract on a large scale as near as possible the quantity of gold indicated by an assay on a small scale. Shall I obtain the concurrence of your scientific readers in the opinion, that the machine and process that would extract successfully the gold from the comparatively poor auriferous rocks of Wales, would be well adapted for the richer quartz veins of Australia and California?

Drifcon, April 30.

LONDON MANAGEMENT.

QUARTZ MINING COMPANIES IN CALIFORNIA.

SIR.—With reference to my previous communications, I beg to enclose a list of quartz mining companies incorporated in California, which you will oblige by inserting in your Journal. The subject connected with quartz operations is now becoming extremely interesting, from the prospect of the majority of the companies, or we may rather say the veins which these companies originally located, being brought into productive operation, so soon as a general distribution of the hired waters of the various streams is accomplished, for the purpose of affording water power for crushing the ores. The economical arrangements which water power affords, combined with the principles of management which govern individual enterprise, have been already proved from the results of practical work, to be that system of operations for saving the gold which have been so much sought after of late, and not through the medium of any particular description of machinery or apparatus, to perfect which so much money has been expended, under the most extravagant arrangements and ideal prospects, without any systematic investigation into the subject whatever.

The introduction of hydraulic power for the extensive scale of operations connected with gold mining in California, is an extraordinary effort to make the gold business extraordinarily productive, and which could not have been accomplished otherwise than through the medium of individual enterprise. California, with her water power, may be, therefore, considered the only country in the world which will continue to produce permanently large supplies of gold with an entire profit.

Quartzburg, Mariposa County, California, March 10. P. CADELL, Jun.

P. S.—P. Cadell, Jun., communicates promptly with capitalists in England and Europe on the subject connected with the Californian water companies, from whom large dividends are realised quarterly.

QUARTZ MINING COMPANIES IN CALIFORNIA.

Name of company.	Capital stock.
Mariposa Mining Co.—Operations in Mariposa Co.; incor. Sept. 26, 1850	\$500,000
El Dorado Mining Co.—Yuba and other counties; incor. March 31, 1851	1,000,000
Mered Mining Co.—Mariposa County; incorporated March 4, 1851	500,000
Blue Quartz Mining Co.—Mariposa County; incorporated March 4, 1851	500,000
Sierra Quartz Mining Co.—Mariposa County; incorporated March 18, 1851	400,000
Pacific Gold and Quartz Mining Company—Mariposa Co.; incor. Mar. 18, 1851	200,000
Union Quartz Mining and Crushing Co.—Nevada Co.; incor. June 27, 1851	200,000
Banker Hill Quartz Mining Co.—Nevada County; incor. June 2, 1851	64,000
Eureka Quartz Mining Co.—Nevada County; incor. August 18, 1851	40,000
Ural Quartz Mining Co.—Nevada County; incor. August 16, 1851	50,000
Ural Mining Company—Nevada County; incor. August 16, 1851	40,000
Fitzburg and Nevada Quartz Mining Co.—Nevada Co.; incor. Aug. 20, 1851	75,000
Gold Hill Quartz Mining Co.—Nevada County; incor. Aug. 20, 1851	100,000
Wyoming Quartz Mining Co.—Nevada County; incor. Sept. 16, 1851	20,000
Tehama Quartz Mining Co.—Nevada County; incor. Sept. 30, 1851	65,000
Nevada Quartz and Gold Mining Co.—Nevada Co.; incor. Nov. 5, 1851	100,000
Pacific Gold and Quartz Mining Co.—Nevada County, formerly Mariposa Company; incorporated Nov. 10, 1851	500,000
Orion Mining Company—Nevada County; incor. Dec. 5, 1851	50,000
Hansonville Gold and Quartz Mining Co.—Yuba and Butte Counties; incorporated Dec. 21, 1851	200,000
Rough and Ready Quartz Mining Co.—Butte Co.; incor. July 1, 1851	45,000
Grass Valley Quartz Mining Company—Nevada Co.; incor. Dec. 1, 1851	150,000
Manhattan Quartz Crushing Co.—Nevada Co.; incor. Dec. 7, 1851	150,000
Gold Mountain Quartz Mining Co.—Butte Co.; incor. Sept. 19, 1851	80,000
Mammoth Joint-Stock Co.—Butte Co.; incor. Sept. 9, 1851	50,000
Eureka Mining Co.—Butte Co.; incor. Oct. 11, 1851	36,000
Washington Quartz Mining Co.—Butte Co.; incor. Oct. 3, 1851	81,000
Wyandotte Quartz Mining Co.—Butte Co.; incor. Jan. 10, 1852	35,000
Eureka Quartz Mining Company—Nevada County; incor. Jan. 8, 1852	100,000
Telegraph Quartz Mining Co.—Nevada County; incor. Feb. 8, 1852	210,000
Oro Loma Quartz Mining Co.—Butte County; incor. Nov. 6, 1851	60,000
Sonora Gold Mining Co.—Tuolumne County; incor. Feb. 12, 1852	200,000
Western Quartz Mining Co.—El Dorado County; incor. March 31, 1852	300,000
Gold Run and Merrimac Gold Mining Co.—Nevada Co.; incor. Apr. 17, 1852	300,000
Empire Mining Co.—Nevada County; incor. May 3, 1852	500,000
Oter Creek Quartz Mining Co.—El Dorado County; incor. May 5, 1852	300,000
Volcano Quartz Mining Co.—El Dorado County; incor. May 5, 1852	500,000
West Branch Quartz Mining Co.—Butte County; incor. May 22, 1852	50,000
Central Quartz Mining Co.—Nevada County; incor. Dec. 31, 1851	500,000
Mercantile Quartz Mining Co.—Nevada County; incor. April 1, 1852	12,500
Mammoth Quartz Mining Co.—Butte County; incor. May 31, 1852	100,000
Granite Hill Quartz Mining Co.—Butte County; incor. May 29, 1852	86,000
Mount Gaines Gold Quartz Mining Co.—Mariposa Co.; incor. June 26, 1852	500,000
Holvent and Lafayette Gold Mining Co.—Nevada Co.; incor. July 7, 1852	600,000
Wolf Creek Quartz Mining Co.—Nevada County; incor. July 6, 1852	50,000
Merrimac and Potomac Gold Mining Co.—Nevada Co.; incor. July 27, 1852	100,000
Armed Quartz Mining Co.—Butte County; incor. Sept. 1, 1852	210,000
Tuolumne Quartz Mining Co.—Tuolumne County; incor. Oct. 29, 1852	600,000
Empire Mining Co.—Nevada County; incor. May 2, 1852	500,000
Phoenix Gold Mining Co.—Nevada County; incor. Oct. 4, 1852	500,000
Poor Fellows Gold Quartz Mining Co.—Butte County; incor. Mar. 25, 1853	20,000
Birds Valley Quartz Mining & Lumber Co.—Placer Co.; incor. Mar. 23, 1853	130,000
Washington Quartz Mining Co.—Shasta County; incor. June 14, 1853	600,000
Union Valley Quartz Mining Co.—Yuba County; incor. Feb. 15, 1854	200,000
Lone Star Co. Sacramento County; incor. May 22, 1854	3,000
Quartzburg Water Co.—Mariposa County; incor. March 1, 1854	1,750,000

Total capital stock.....\$14,409,500

N.B.—Object of incorporation,—to furnish water power for quartz mills, and hydraulic power for extensive operations connected with placer mining; also to furnish the means of conveying lumber from the timber region, and for irrigating the valleys in the mountains for agricultural purposes.

NORTH BRITISH AUSTRALASIAN COMPANY.

SIR.—As an impartial shareholder, who was present at the meeting of the above company, on the 17th March, I cannot refrain from expressing my surprise at the misrepresentations contained in "Albion's" letter, which appeared in your Journal of the 26th. So far from that meeting being unsatisfactory, and the "shareholders dissatisfied with the report and state of affairs generally," it is due, in fairness to the directors, to reply that, as stated in your own account of the proceedings, in the Journal of the 21st, the report and accounts were unanimously adopted.

Again, instead of the increase of stock being small, or the number sold and boiled down being little more than the number bought, it is only necessary to refer to the accounts, from which it will be seen that the live stock in June 1853, consisted of 23,448 sheep, 9044 cattle, and 255 horses. The increase on sheep, by births, to June, 1854, beyond the number sold and boiled down, was 6232 head. The increase on cattle, 1859, and on the horse stock, 111.

"Albion" also asserts that the inability to pay the dividend now, arises from the necessity of meeting bills of the Sydney agent, drawn on London, for advances made on goods at Sydney; while the report itself plainly states that it is because the cash balance, at the close of the accounts in December, has been diminished by drafts against fresh consignments from Sydney, and other expenditure, to be reimbursed when the consignments are sold.

The agency operations, the profit on which, according to "Albion," is unfortunately not exhibited in the accounts, are evident enough to any one who understands figures; for it appears, in the revenue account, that the receipts from these sources were 1844l. 15s. 8d. in Sydney, and 2490l. 11s. 11d. in London: making a total of 4034l. 17s. 7d., which amount provided for the entire charges of management at Sydney and London, and left a surplus of 595l. 16s. 10d.

With regard to the Karawine Mine, its expenditure and its prospects, there can be but one opinion of the distinct and candid statement of Mr. John Taylor, Jan., which satisfied every one present at the meeting; and, as to the allowance to the directors for their diligent management and protection of the interests of the shareholders, it did not doubt but that they would have been satisfied with any reasonable vote, had it been given in a temperate and gentlemanly tone, which was scarcely, however, to be looked for from those shareholders who take a delight in rendering themselves conspicuous, perhaps with no other serious object in view than to make a gratuitous display of their oratorical abilities, to the annoyance and discomfort of every respectable concern they may be connected with. In conclusion, I earnestly express a hope that my co-proprietors will not be influenced by the misrepresentations of "Albion," whose design appears to be to depreciate the value of one of the best and most thriving of our Australian investments.—London, May 3.

SCUTTORS.

NORTH BRITISH AUSTRALASIAN COMPANY.

SIR.—As a shareholder who attended the meeting referred to by "Albion," in a communication (as unbecomingly as erroneous) in your last Journal, I feel bound, in justice to my co-shareholders present, and for the information of those who were absent, to correct the series of gross misrepresentations therein contained, and which are quite unworthy a place in your valuable columns.

1. The report being unanimously adopted, after the full and satisfactory answers to the questions put to the management, is sufficient to disprove the dissatisfaction imagined by "Albion" to be felt by the shareholders with the report and affairs in general. 2. The stock, as per Appendix 3, is, after all deductions for sales, deaths, boiling down, &c., better for June, 1854, than for June, 1853, by the following respective increase of—Sheep, 6232, or 26½ per cent.; horses, 111, or 43½ per cent.; increase of stock, 3. The agency business, as I read the lucid and comprehensive account of revenue, on the 10th page, seems not only to be distinctly stated, and distinguished from the business proper of the company, but exhibiting at a glance to any one of the meanest capacity its profitable nature, in the realisation of about 6000l., thus more than defraying the charges of the whole management in Sydney and London, which otherwise would cost out of the profits derived from the proper business of the company; and furthermore, this extraneous business does not entail, as I understand, one farthing more for management than that involved by the estates, &c. So much for the assertions of "Albion" on this branch. 4. It is nothing new for mines to absorb a large amount of capital before reaching a state of productiveness, as your readers well know to their cost; therefore, why should ours in New Zealand be an exception

to the rule?—5. I, for one, do not object to pay directors for services rendered when a concern is flourishing, and the net profits for the year more than doubling those of the previous one; and rejoiced I am that the good sense of the meeting would have the idea of passing over the services so meritoriously performed by the directors in the past, by voting the remuneration from 1854, and not (as wished, perhaps, by "Albion") from the present period. The labourer is surely worthy of his hire. I have now gone fairly through the matter, and would recommend "Albion" before writing again, to analyse reports and accounts, as I have done, and not attempt to do injustice to a company, and occupy space in your esteemed Journal that might be more worthily filled.—London, April 30.

CONSISTENT.

GREAT CAMBRIAN MINING AND QUARRYING COMPANY.

FELLOW SHAREHOLDERS.—How is it that no satisfactory answer can be obtained from the directors to the repeated enquiries about our stone quarries? In the prospectus we were assured that, whatever became of the mine, the quarries would pay; and I hope you do not forget the following words, extracted from that document:—"And from the contracts that are now ready to be entered into, the directors have every confidence that, from the working the quarries alone, a dividend of upwards of 30 per cent. upon the whole capital will be realised within the first year."

Notwithstanding this statement the quarries have been neglected, and 300 tons of stone dressed for market, according to a report signed Anthony Perceval, and issued in Dec. 1853, do not appear to have been yet sold. And to this cause for well-grounded dissatisfaction with the past management of our property that, with the exception of the few who can attend the company's meetings in London, the great body of shareholders have had no report issued to them, or statement of accounts, to explain the unproductive expenditure of the large capital entrusted to the directors; and it appears desirable undoubtedly that a better state of things should ensue in regard to the expenditure of the call just made. May we hope also that we are not about to realise the fable of the "Dog and the Shadow," in our neglect of the Stone for the search for the Gold.—May 1.

HOPKINS'S GEOLOGY AND MAGNETISM.—No. II.

ON MINERAL VEINS—THEIR FORMATION, GENERAL CHARACTER, AND CONTENTS.

In looking at sulphuretted minerals which have replaced organic remains in compact argillaceous and calcareous sedimentary rocks, the reader may be prepared to expect not only a similar action, but one of greater amount in the fundamental crystalline series. When we find mollusc and spirifer shells formed of sulphuretted copper, iron, and lead, in their exact form, we cannot avoid coming to the conclusion that these mineral substances must have been introduced in solution into the cavities left by the decomposition and disappearance of the shells. These effects are so common, not only in America and on the Continent, but in many parts of England, in the chalk, lias, and mountain limestone, as not to require reference to any particular locality. We find, also, sulphuretted iron and lead in the minute fractures of wood and bones in the sedimentary calcareous rocks. Even the carbonaceous lime of many fossil shells does not always appear to be that of the original, but to have been infiltrated into cavities left upon the disappearance of the matter of the shell. Again, in the crystals of felspar, decomposed in the body of a rock in a homogeneous kind of porphyry (elvan), the original substance of the crystals are frequently removed, and are replaced by peroxide of tin or pyrites, showing most distinctly that mineral matter in solution permeates the pores of the hardest rocks in the absence of veins or joints. In a word, looking broadly into the general character of our rocks, composing the external part of our globe, both primary and secondary, we find them to be a compound of all the known elements in a semi-aqueous state; and, as a necessary consequence, have always a tendency to fill all cavities, joints, and fractures with mineral matter in solution, which crystallises by degrees therein, in accordance to the laws that govern the different compounds.

According to the preceding observations, we would naturally conclude that all fissures, be they joints or fractures, would partake more or less of the mineral character of the rocks so divided or broken; that the substances principally filling the joints and fractures in limestones would be calcareous, while in sandstones and rocks would be quartzose, and in hornblende rocks, veins of greystone, or basalt, as is usually the fact.

However, occasional variations do take place—for instance, in a compound of carbonate and silicate of lime we sometimes observe quartz veins; and, on the contrary, we find veins of carbonate of lime enclosed in silicious formations. Indeed, nearly all the primary limestone is so situated, and is usually found in great banks, embedded in granite and gneiss.

The filling of cavities and small fissures in crystalline and other rocks, by carbonate of lime, is very common, even when calcareous rocks do not constitute any large proportion of the bordering mass. The ready solubility of the carbonate of lime, when saturated with an excess of carbonic acid, occasions the passage of the former substance from calcareous rocks into the vesicles of others; and if not again decomposed and removed, it would prevent the deposit of other substances passing in solution through them. Sometimes the decomposition of the felspar in porphyry will liberate a large proportion of lime, which may issue out, and be deposited on the surface of a rock, or be precipitated within its cavities, without the parent rock being subjected to an ordinary observer any calcareous properties. This is commonly seen in the western chain of the Andes.

When we reflect on the composition of the water which may infiltrate itself into a fresh fracture, intersecting series of crystalline rocks of variable composition, all a moist state, saturated, and composed of elements susceptible of generating active chemical actions, when partially mixed in solution, or coming in contact, the question becomes much more complicated than the mere permeation or infiltration of a simple substance, and easily accounts for the great variety of minerals we sometimes find crystallised together in our mines.

NEW COAL COMPANY IN DURHAM.

The value of the coal fields in this vicinity are well known, and as much time and money have been irretrievably lost in the endeavor to discover "gold mines," and work them to a profit, capitalists may do well to turn their attention to, and lavishly invest their capital in, the development of colliery enterprises, which have so often been appropriately called the "real gold mines of England."

A new undertaking—the Hartlepool and Hutton Henry Coal, Coke, and Fire-brick Company—is about to be brought before the public; and, judging from the reports upon the estates by Messrs. T. E. Forster and Wm. Armstrong, Jun., Mr. Seymour Bourne, Messrs. John Taylor and John Wales, and Mr. R. S. Johnson, there appears full justification in anticipating favourable results. The present proprietors propose to erect, on the property, merely for the existing liabilities may be discharged, and the capital they have invested be returned to them in paid-up shares of the company; the liabilities to be paid in cash on taking possession will be £100,000, and a small annual instalment for ten years, without interest, to cover the advances made to the present proprietors for developing the resources of the colliery. This advantageous arrangement could not have been made for the perseverance and skill displayed by the managing partner, Mr. M. Seymour, who has explored the property so fully as would appear to place beyond doubt that a "vend" taken up under order that the holders may have the property in their own hands, it is not intended to appoint directors until the first general meeting, and then to select from amongst the shareholders themselves.

The estate on which the operations of the company are to be carried on consists of a large and valuable coal field, of about 3000 acres, containing household, steam, and large quantities of fire-brick, and a fine clay of an excellent quality. The present working colliery, which is situated on the Catley Hall estate, has a pumping water, divided into three compartments, two for drawing coal, and one for pumping water, an engine of 30 horse power, adapted for raising coal and pumping, with the necessary erections; 300 dwelling-houses for workmen; and a fire-brick manufactory, in full operation, turning out at present 50,000 a week, which is short of the demand. From this shaft, Mr. Seymour has explored about a mile and a quarter in a westerly direction, which takes the entire centre of the property. The first seam of coal, an average thickness of 3 ft. 10 in., with a good roof, requiring little timbering, produces an excellent coking and manufacturing coal, which can be sold in a "vend," or "screned" state; immediately below this lies a seam of fire-brick, 6 ft. deep, which supplies the fire-brick manufactory, and is worked at a small cost; 8 ft. deeper is another seam of coal, 4 ft. 3 in. thick, with two small bands in it, one 1 inch and the other 2½ inches thick; this seam has not been sufficiently worked to fully test its quality, but there is little doubt it can be sold as a steam-coal; it is very bright, and works large. The estimated net outlay, according to the report of Messrs. T. E. Forster and Wm. Armstrong, Jun., necessary to be expended for the complete development of the property, is £100,000, which would realise a vend of 100,000 tons annually.

The other portion of the estate—the Hutton Henry Colliery—comprises about a thousand acres of coal, and is leased from the trustees of the late Duke of Cleveland; the resources are entirely unexplored. It is touched, in the value of this grant, and particularly the thickness and quality of each of the seams of coal to be met with under it, Messrs. Forster and Armstrong state that on the north-west, and with a few hundred yards, the five quarter and main coal, with sections of 3 ft. 6 in. and 4 ft. 6 in. respectively, are found; the latter, however, has been worked to the Widdow's Grange Colliery, constituting the "Caradoc" and the "Howden" Widdow's Grange Colliery. On the east margin of the property, the Castle Eden Coal Company works the low main seam, which, when left off, was 4 ft. 10 in. thick of hard good coal, furnishing the Hartlepool West Hartley and the London market. The low main seam has a section of 8 ft. 1 in. of good steam coal, and the "Harvey" from 5 ft. 6 in. to 3 ft. 8 in., similar in quality to the same seam at Rodcliffe Colliery. On the west, the five quarter and main coal have also been worked to the Widdow's Grange Colliery, and although both sections are good the coal is tender. The "low main" seam, and the "Harvey" have not been proved, but there is little doubt they both are of good quality, and similar conditions to the same seams north of the property. The "Harvey" seam, coal is inferior on the east, and not in working, and is from 3 ft. 6 in. to 4 ft. 10 in. high; but to the east inferior in height and quality. The superior seams are not denuded by the overlying limestone. It will thus be seen that all the neighbouring seams will be found within the Hutton Henry field; but not having been explored, cannot be said over how much of the estate the different seams extend. Most changes take place as they approach the inferior seams of Castle Eden, and a large change is placed in the low main, furnishing a good steam coal over a large area of the estate, and the Harvey seam, which there is good

so that our supply will be out to-day. To keep the water out of the 60 fm. level as long as we could, we have been obliged to cease drawing stuff for the last nine days, consequently we have not had any ore to dress; it being of more importance to drive the 60 fm. level cross-cut at present; we kept on water for that purpose. We have 12 to 15 tons of ore dressed, which we expect to ship this week.—E. DAVIES: May 1.

DUNSEY WHEAL PHENIX.—The lode in the stope in the back of the deep adit level, west of the shaft, is large, and producing some excellent work for zinc; we have commenced stopeing east of the above, but no lode taken down. The stope in the bottom of the adit are looking well. We have put in another rack, and are getting on very satisfactorily in fixing dressing machinery.—J. SPANCO: May 1.

EAGLEBROOK.—Since my last letter, we have sunk the engine-shaft 4 ft. below the 10 fm. level; the lode in the shaft is about 5 ft. wide, composed of clay-slate and white spar, with strong spots of lead. The 10 fm. level west is now extended 6 fms.; the lode in the end is 6 ft. wide, producing 15 cwt. of lead ore per fm.; the 10 fm. level east is extended 6 fms. 1 ft.; I cannot speak of any alteration in this end since my last. During the past week we have driven the cross-cut towards the middle shaft 1 ft. 6 in., and have intersected some strings of spar; the ground still continues very hard, consequently our progress is slow. In consequence of not having sufficient water to work our wheel, the water is now in our 10 fm. level. The shaft and end men were laid yesterday. We are now anxiously waiting a change in the weather, as nothing can be done in these bargains till we get more water to the wheel.—H. TACK: May 1.

EAST BLACK CRAIG.—The blackstone seems to be coming in the 22 end west, on the north, and a lode of Jack and carbonate of lime on the south side. In the cross-cut south of the shaft, the men have cut the south wall, without any lead; they then drove east from the middle of the cross-cut, on some branches of lead, when they cut old workings; they then went further east, and opened the ryder rock, where there were good branches of ore, and put the cross-cut through to the same old workings. They will now sink on these branches through to the 27, where those branches are very good for lead. The end driving east in the 33, on the south lode, continues to look well for lead, and also the lead driving west to meet it; they will hole, or nearly so, this week. The pitches are much the same.—R. WILLIAMS.

EAST FRONGOCH.—During the past week, nothing has been done as to sinking the shaft in consequence of the dry weather; but, in order to keep the men on for a few days, or till such time as there would be a change in the weather, and being a pure well acquainted with sinking an engine-shaft, I put them to drive the 20 end east on the course of the lode; the ground in the said level is very hard, but showing a very promising appearance, principally composed of blende, sulphur, quartz, and thickly impregnated with small spots of copper. I regret to say the men are again hindered by the water, which is now 2 ft. up in the level. The summer weather, I fear, will much retard our future operations, unless we can get an additional supply of water for the wheel.—F. PASCOE: April 30.

EAST WHEAL RUSSELL.—We have driven the cross-cut south on the lode in the 100, at Hitchen's shaft, 2 fathoms; the lode is of much the same character as before reported, being composed of gossan, capel, spar, and pryan. The 55, driving east, is still looking very promising, the lode is yielding good stones of yellow ore. We are progressing with Hitchen's shaft with all possible speed below the Tunnel level.—W. MURKIN: May 3.

EAST GUNNIS LAKE AND SOUTH BEDFORD CONSOLS.—The lode in the engine-shaft is 1½ ft. wide, producing saving work. In the 40 fm. level west the lode is 3 ft. wide, worth 1½ ton of ore per fm. In the 36 fm. level west the middle lode is 2½ ft. wide, producing 1½ ton of ore per fm. In the winze sinking in this level the lode is 2 ft. wide, producing 4 tons of good ore per fm. The lode in the Red Whim shaft is 4 ft. wide, producing good saving work.—J. PHILLIPS, Jun.: May 2.

ESGAR MYNN.—In the stope in the back of the south winze the lode continues to look well, and during the week has yielded its average quantity of ore. In the 20 fm. level, driving west, the lode has a very promising appearance, the stratum through which it is being driven is very congenial for the production of ore. In the stope in the bottom of the 20 fm. level, on the north side of the north winze, we have some very good veins of ore. The cutting of the lode in the 40 is still proceeding.—J. PAUL: April 28.

FREE DONAI.—The lode in the Antimony lode, driving west, is 3 ft. wide, with a well-defined foot-wall, composed of spar, intermixed with soft killas, but not to the lode. In the winze sinking in the bottom of this level the lode is 3 ft. wide, with a good branch of lead, worth 5 cwt. of lead per fathom. We have not commenced to sink on the lode north of this as yet, as we have been employed in bringing up a drain to carry off the water from the ground, in order to see the best place for commencement. The end driving east on the lode, south of this, is looking very promising, worth 6 cwt. of lead ore per fathom, of good quality. The end driving west on the Smiddy lode is still improving, being worth 4 cwt. of lead ore per fathom. The mine, on the whole, is looking more promising than it has done for some time past.—J. MURPHY: April 28.

GREAT CAMBRIAN MINING AND QUARRYING COMPANY.—Capt. Hogan writes:—"We made a discovery in the junction of Nos. 2 and 3 lodes this week for lead ore, the appearance is as kind as ever I saw. Again, referring to last week's letter, he says:—"The old miners all say that they have never seen so kindly a lode for lead; the back is from 3 feet to 4 feet wide, and contains a strong mixture of lead all through."

GREAT COWARCH.—In the 30 fm. level north we are cutting through a horse of porphyry and a series of branches, which is varying from 4 to 18 in. wide, and of a very fine character; I should recommend to continue cutting through until we reach the foot wall. In the 30 south the ground is eased, and the lode a little improved, with several branches of solid lead ore from the hanging wall dropping into it, which look well for making lead a few fms. further south. The dressing, and all the rest of our operations, are going on satisfactorily.—R. NOBLE: April 28.

GREAT HEWAS.—We have intersected the north lode also in the 60 fm. level; it is not rich just where we cut into it, but contains some tin; we shall now commence to drive east on it, where it is likely to improve. The north lode in the 56 fm. level is 1 ft. wide, good work, with promise of improvement. In the 46 the lode is 3 ft. wide, good work, the 36 is opening out well. The cross-cut eastward (for the north lode) are going on favourably. The stope in the back of the 36 is looking better than I ever seen them. The prospects generally are improving.—JOHN WEBB: May 2.

GREAT SOUTHERIDGE CONSOLS.—Hitchen's engine-shaft is now down 6 fms. 2 ft. under the adit; we have stopped sinking, and have secured the shaft. We are now waiting for the foundry, so that we may begin and drop our bottom lift, &c. We are heaving in the engine as fast as possible, and I hope to put it to work in about a fortnight or three weeks. All other things are going on satisfactorily.—THOMAS METHERELL: May 3.

GREAT SOUTH TOLGUS.—The lode in the 70 fm. level is 2 feet wide, producing about 1½ ton per fathom. In the 60 fm. level there is no alteration in the past week. In the 50 fm. level the lode is 2 ft. wide, producing 3 tons per fm. The pitches continue to look well.—J. DAW: April 28.

GREAT TREGUNE CONSOLS.—The lode in Hober's shaft still presents a very flattering appearance, and the ore is of the richest nature; we are saving all the lode. The branches dipping in from the north are, doubtless, of a most promising character, composed simply of fluor-spar and malachite or native copper. These branches are much larger, and more numerous.—J. SPANCO: May 1.

GREAT WHEAL BADDER.—The new shaft is much the same as for some time past. The lode in the 51, east and west, is 1½ ft. wide, producing stones of lead, and letting out more water, which has drained the stope in the bottom of the 40. The lode in the 40 is 2 ft. wide, worth 5½ per fathom for lead. The lode in the 30 is 1 ft. wide, turning out good stones of lead. The lode in the stope in the bottom of the 40 is 1½ ft. wide, worth 15½ per fathom, for 70 fathoms in length. We have discovered some lead in the rise above the 30, west from Sunderland's, and are now opening tribute ground. The tribute pitches generally are without any material alteration.—J. ROBERTS: May 1.

GREAT WHEAL FORTUNE.—Harvey's engine-shaft is sunk 7 fms. 4 ft. below the 60, ground still favourable. The rise in the back of the 60 is commenced with the lode below the 50 by a borer hole, and will be opened complete at or about the end of this week. The stope east and west of the said winze are worth 2½ per fm. The men who were in the rise in the back of the 60, east of Harvey's engine-shaft, have this day re-umed the 60 end east; the north part of the lode in the present end is 3 ft. wide, worth 14½ per fm. The lode in the 60, west of the said shaft, is 3 feet wide, worth 14½ per fm. The lode in the winze sinking below the 50, west of the latter mentioned shaft, is 4 ft. wide, worth 13½ per fm. The lode in the 50, west of copper house shaft, is 2 ft. wide, worth 12½ per fm. The lode in the 40, west of this level is producing good quality stuff. The water on the north lode is sinking fast. We expect to be enabled to resume the 30 west on the said lode in about one week. The lode in Carnmeal adit end, west of Pascoe's shaft, is 3 ft. wide, producing tin, of low quality saving work. We expect to commence working the stamping-engine in about three weeks.—J. S. NOBLE: April 30.

GREY MARE.—We have now a good stock of materials, and, with the present favourable weather, nothing to prevent us proceeding rapidly with the works. We have but little water, and I should, therefore, advise the sinking of another 10 fms. as soon as possible. The lode at our present depth is changeable, which prevents me giving a very correct estimate of the ore already discovered. We have driven about 30 fms.,—these backs are standing, with the exception of two stopes, which we have commenced this month. Most of these backs are very good. We have sunk the north shaft 6 fms. 2 ft. on the course of the lode, the iron in which is very good, and I think before we get much deeper we shall have a good lode here. In the south end of the whim-shaft the lode is about 3 feet wide in the back of the level, and 5 ft. at the bottom, of a great deal better quality going down. We have driven about 12 fathoms in this end, and put in timber ready for stoping; the stope here at present are about 7 fms. long, and the lode about 4 ft. wide, producing 5 tons per fm. In the north end the south shaft the lode is 5 feet wide, producing about 4 tons per fm. We have driven about 11 fms., and this back still standing, some parts of it very good. The lode in the south stope is about 4 feet wide on the average, producing 6 tons per fm. The south end has been driven about 8 fms., and I find that the deeper we get, so the lode widens and improves in quality, and requires but little dressing. We intend sinking the whim-shaft another 10 fms., which I expect to accomplish in about two weeks. Next month I shall commence setting on tribute. This week we have raised 70 tons of ore, and sent 60 tons to the quay at Lostwithiel.—J. WARR: April 31.

HAWKMOOR.—The men in the eastern shaft have been sinking by the side of the lode during the past week, the ground is very congenial for copper ore, but there has been no lode taken down since last report. The lode in the rise in the back of the 30 is producing some small floors of ore, but nothing to value. The lode in the stope between the 30 and 50 continues to produce good supplies of ore stuff for the dressing-floors, but the quality is not equal to former produce from this place. In the 20 end east there is no alteration in the lode; it produces a great deal of mundle and good-looking spar, but not much copper ore. But little has been done in the pitches this week, as the tributers have been clearing their pitches. We weighed off at Cal. stoke yesterday: ore sold on the 19th instant, 53 tons 7 cwt. 2 qrs., which fetched 67. 6d. per ton; tin sampled (computed) 45 tons. We have this day commenced taking about the old wheel for rebuilding; the men will be employed in assisting the carpenters, enlarging the boat, and making the tramroad from the east shaft to the dressing-floors.—J. KERRICK: J. RICHARDS: April 28.

HEMERDON CONSOLS.—In the 30 fm. level the lode in the eastern end is about 18 in. wide, and producing very good work for tin; in the early part of the month it was larger, and we think it will recover its former size in the course of this month. In the eastern end the lode is at present disordered by a small cross-course, with a branch of mundle, about 2 inches wide, which is considered a good indication, and the lode will, no doubt, soon take its former direction, and be equally productive as it was before. In the 15 fathom level end east the lode presents a very promising appearance, and yields good work for tin; this driving, therefore, is laying open very profitable ground; in the back of this level the stope are looking much better than usual, and yielding very fine work. The tin sold on Saturday will be shipped to-

tomorrow, and you will have the bills for it in a few days. I have discharged Captain Truren, and paid him off.—J. WOLFFSTAN: May 1.

HILL BRIDGE.—I have again visited this mine, and beg to inform you that the lode at Wheal Jewel shaft is still from 7 to 8 feet wide, composed of fluor-spar and gossan, with good spots of black, grey, and yellow copper ore. We are now down about 16 fathoms from the surface; the ground is favourable for sinking, and the lode appears to take a southern underlay, but not more than 9 inches in 6 feet. Judging from the appearance of the Great Wheal Friendship lode, when opened at such a depth as this, we all think that this has the very appearance of the before-mentioned Great Friendship lode, and I have no doubt it will turn out equally as rich at a deeper point.—JOHN SPANCO: May 1.

HINGTON DOWN CONSOLS.—Morris's shaft is sunk 9 fms. below the 75, the lode in which is large, and worth about 5 tons of ore per fathom. Doidge's winze is sunk below the 75 fm. level 9 fms. 2 ft., the lode in which produces good stones of ore, but at present rather coarse. The 75 fm. level east is less productive than last reported, and is worth at present from 2 to 3 tons of ore per fathom. The 65 fathom level, east of Arthur's winze, is at present poor. Harris's winze, sinking below the 65 fathom level, is without important alteration. In the 55 fathom level the lode produces good stones of ore, but not enough to value. On the south lode, Hitchen's shaft is sunk below the 65 fm. level 8 fms. 3 ft., the lode in which is from 3 to 3 feet wide, producing good stones of ore. In the 65 fm. level east the branch of ore still holds good on the north wall of the lode; in the western end of this level there is no alteration. March ores were weighed on Friday last, 266 tons 7 cwt. 2 qrs., and we sampled April ore, computed 259 tons.—W. RICHARDS: May 2.

HOLMBUSH.—In the 145 fm. level west, on the Holmbush lode, the lode maintains its full size of 2 ft. wide, interspersed with branches of ore of good quality, and the ground is easier for driving; in the western end in the 145 fm. level, on the Flapjack lode, the lode in the past week has diminished in size, the north and south walls being found to incline towards each other, from which circumstance it is inferred that the main part of the lode has not yet been gotten, it being yet further south. The lode in the eastern end is about 2½ ft. wide, producing occasional stones of ore; the lode in the end driving north in this level, on the new lead lode, is not so productive as last reported, it is now yielding about 4 cwt. of silver-lead ore per fm.; a pitch has been set to six men in the back of this level, to extend east and west of the cross-cut. The lode in the 120 fm. level west, on the Flapjack lode, is 2 ft. wide, composed of mundle, pryan, and peach. The tribute pitches continue to yield their usual quantity of copper ore; the copper ore sold on the 19th of April amounted to 289 tons 12 cwt.

KESWICK.—At Brandley Mine, the cross-cut to the lode in the 40 fm. level is being driven by six men. The lode in the 30 fm. level north is worth 8 cwt. of ore per fm. We have three stopes in this level—No. 1, worth 10 cwt.; No. 2, 8 cwt.; No. 3, 5 cwt. of ore per fm. The lode in the rise in the 30 fm. level south will yield 10 cwt. of ore per fm. Harris's stope, in this level, will produce 15 cwt. of ore per fm. In the 20 fm. level, the lode is worth 10 cwt. of ore per fm. At Barrow Mine, the tribute pitch will yield 10 cwt. of ore per fm. The vein in the 17 fm. level, at Thornthwaite, has much improved in appearance.—R. B. SHEPHERD: April 30.

LANHEROOF WHEAL MARIA.—In opening the ground east and west of cross-cut, in the 50, we have let out a large quantity of water from the lode, inasmuch that we have been obliged to work the engine fast to keep it in fork. The upper levels are drained quite dry, and all the water we have, or nearly so, is coming out of the lode in the 50; in consequence of this, our progress in driving is but slow, but we hope by the end of this week we shall have made sufficient room to be able to commence cutting through the lode. The 40, west of Jesse's shaft, still continues to produce large slabs of mundle, and copper intermixed, chiefly from the north part of 3 feet wide; the ground is much easier for driving as far as the lode is concerned. In the 40 east we are driving in a horse of killas, and carrying the north wall of the lode in the south side of the level, and a branch, 1 foot wide, on the north side, composed of spar, floukan and mundle, with occasional spots of lead and copper ore.—April 30.

LEEDS TOWN CONSOLS.—We hope to commence cutting a pit in the 40 fathom level the latter part of this week. In the 30 fm. level east the lode is still small and poor; in the 30 east the lode is 3 ft. wide, and, though not rich, is saving work for tin. In the 20, east of flookan, the lode is 2 ft. wide, and still poor. In the 10, east of flookan, the lode is 1 ft. wide, and though not so rich as it was last Saturday, will pay well for stamping. At Kley's shaft, the lode has improved both in size and quality; it is now worth 10½ per fm. In the 10, east of the shaft, the lode is 1 ft. wide, with good stones of tin, for stamping. We are working 12 heads of stamps; the other axle is not yet delivered from the foundry. Our carpenter's time is fully engaged in making materials for the dressing-floors. I suggest that the fixing of the second axle should not be hurried for the present, until we have made further progress with the apparatus required for dressing the tin. The stamping-engine appears to work the 12 heads very well, but it is evidently not all right yet, and a further trial is necessary. The working engineer tells us that when we add the second axle we shall also have to add another boiler. We hope to commence stamping in the early part of next week. It being seed time, we have great difficulty in getting stones carried from the quarry, and we have not, therefore, been able to get on so fast as we could wish with our burning-house; it will, perhaps, take us three weeks to complete it.—P. PASCOE: May 1.

LANDUNO MINE.—We have at this time 30 men employed on tinwork, working four bargains. Treweek's shaft, sinking by six men, is 12 yards below the 110 yards level. The string Coffin is still in the shaft, its dip west at present being but very trifling. In the last three yards sinking we have broken good saving work, and there is still a little ore in the north end of the shaft. To drive north at this point would be a good trial, but it would not be advisable to suspend the sinking to drive on it at present, as we conceive it is of the greatest importance to get the shaft through to the adit as quickly as possible. There are still over 30 yards to sink to the level. The adit level is driving by six men, and is now within 40 yards of the shaft, and is in compact limestone. We have just commenced a rise by four men in the back of the 110 yards level, on Ellis's string, to prove the ground over our present workings in this level. There is ore enough in sight to pay for rising, and there is a good bed 8 yards above; I hope this will prove good ground. Another rise, by four men, is on the same course of strings where we have intersected them in the 80 yards cross-cut, east of Treweek's. In my last monthly report I remarked of this place that the strings in it were looking promising, and though not of much value at present, we thought it proper to continue raising until we meet a strong bed, which we believe is very near. We have not reached the bed, and there is no particular alteration in the strings in the rise. There are 72 men working on tribute, at tributes ranging from 6s. 6d. to 13s. 4d. in 12. As far as is consistent with the proper working of the mine, we encourage the men to work on tribute, believing that, from the peculiar nature of the strings and stratified formation, the places that have ore enough in them to pay for working at a tribute can be worked more economically to the company on tribute than on tinwork; of course you will understand me to mean those places that are on small and comparatively unimportant strings, and not the shafts, winzes, or principal veins, necessary for the speed and large exploration through the mine. With this view, we have gradually reduced the tinwork and increased the tribute, by setting such places on tribute as soon as there was sufficient ore in them to pay for working. Our general prospects are encouraging. I hope we shall considerably increase the returns. The pitches we have had working are, on the whole, holding much the same, and two places changed from tinwork to tribute at the last setting have, since then, improved very much; there are four men working in each of these places, at 10s. in 12, and if the ore continues with them they will make very good wages. We are likely to get the tinwork in the two men in the 120 yards level. One of the most important places in the 55 yards level, north of Higher shaft, on Jones's string, and is the more important because in new ground, this string having been productive near the surface and further south. The other place spoken of as driving south from the old workings we have lately cleared out, in the bottom of the 95 yards level, on the Liaw Maw string. Since the meeting was held, in December last, we have driven west from the workings at Owen's shaft, and have discovered a new string, 10 yards west of the former workings at this shaft; it is working by two men on tribute, and yielding a little of very good ore. I believe this to be a string, which the tributers have lately raised some good ore, west of Treweek's shaft, near the surface. These little discoveries confirm the opinion we have before expressed—that the western ground is well worthy of a cross cut west from Treweek's, as a trial; however it would, perhaps, be best to delay the driving a little, until we sink Treweek's deeper; we shall then obtain a section of the strata, and prove which is the most promising bed to drive on. The number of hands at present employed is as follows:—Tinwork, 20 men; tribute, 72 men and one boy; raising waste and surface labourers, 11 men and 10 boys; dressing ore, 3 men and 24 boys; fillers, landers, tramways, arizans, &c., 19 men; total employed, 118 men and 245 boys. I presume you have had a bill of materials for raising in December and January. The amount, freight paid, 1145s. We have just sampled the ores raised in February and March—150 tons—which, with the waste ore, we hope to ship against the next two months' settlement, we have estimated to be worth 1200l. The very severe winter we have just passed has, in some degree, affected our returns, entirely suspended our raisings of waste ore, as well as increasing the expense of dressing the ore that has been returned. The raising of waste ore we have again resumed. We have lately further extended the works, for dressing and crushing the ore, and lessening the expense of carting the ore to the surface. The tributers are now able to deliver it as it falls from the wagon, as the lander, or bankman, delivers it, so that it is ridged as it falls from the wagon. This will save considerable manual labour in ridging, as it answers the purpose very well. To-day we ship a cargo of the last sampling's ore, so that I hope to be able to get the returns from Amble a little earlier next time.—April 23.

LYDFORD CONSOLS.—Richard's engine-shaft is down 10 fms. below the adit level, which will be considered a very satisfactory progress; there is no portion of the lode at present in the shaft, it being to the west a small distance only; when last seen in the shaft it proved to be 6 ft. wide, and was composed of flookan, quartz, mundle, and good stones of lead ore—a very kindly lode; I think, from the fact of our having driven upon the course of this lode for 160 fms., and in proving to be for that distance on an average 3 ft. wide, and composed of flookan, quartz, barytes, and in places good saving work for lead ore, any person not satisfied has no reason whatever to be so. Our progress from the commencement has been most satisfactory, and a short time more (supposing we drive in the 12 fm. level, which I am at present disposed to do) will in a great measure prove the general character of the mine, and surely no shareholder can expect a course of ore from an engine-shaft sinking in the stratum. I do not think I can give you a better guarantee as to my opinion of ultimate success, than by increasing my interest as I did the other day.—J. RICHARDS.

Richard's engine-shaft is at present sinking very satisfactorily, the present depth of which is now about 12 fathoms below the adit level, and by the end of this month (May) we hope to have our whim erected, and commence driving at the 13 fm. level, where we expect some lead ore. We are about to attach the balance-bob to the wheel, and some other necessary surface work will be got on with as fast as possible, to enable us to make good progress in laying open the mine.—JOSEPH RICHARDS: May 2.

MARKE VALLEY.—Our operations on the new discovery, or Rosedown lode, in the 80 fathom level, are as follow:—We have opened about 5½ fathoms west on the course of the lode, and it has produced full 4 tons of silver-lead ore per fathom, and the end is producing the same quantity at the present time. There is a large stream of water coming from the end and from the bottom of the level. In driving east on this lode, in the 80 fathom level, it will produce 3 tons of good ore per fathom. All the other parts of the mine are yielding much the same as usual—namely, the stope in the bottom of the 65 fm. level will yield 6 tons of ore per fathom. In driving east from the winze in the bottom of this level the lode is yielding, for the breadth carried, 7 tons of ore per fathom. The lode in the winze sinking in the bottom of the 65 will yield 8 tons of ore per fathom. The stope in the bottom of the mine-way level continues to produce 15 tons per fathom. In sinking Fawcett's shaft, the ground continues much the same as last reported. Our copper ore sold on the 19th were their computed weights, and realised, in money, 1354l., instead of 1342l., as reported.—JAMES SEACOMBE: April 28.

MOLLAND.—In rising through the slide in the back of the 32 east, we have not cut anything worthy of notice; consequently, I shall remove the men to stope some ore ground in another part of the level as soon as they have cleared their stuff. The ore ground which we are now stoping in the back of the 42 east is in an end of ground, and about 3 fms. high, worth about 10l. per fm., so that we are obliged to drive for stope, which will cost a little more per fathom in stoping; set to four men, 1 fm.,

at 6l. 10s. The pitch in the back of this level is worth 8l. per fm.; set to two men for two months, at 12s. in 14. tributes. The lode in the end, driving east from the bottom of the winze, in the eastern adit, is a little larger than last week, though not quite so ore, being at present worth 8l. per fm.; set to three men, 1 fathom, at 8l. 10s. per fm.—T. BERRIS: May 2.

MOUNT'S BAY CONSOLS.—The cross-cut north has been driven in the past week 4½ ft., ground much the same as last reported. East on No. 1 lode has been driven 1 ft., lode 20 in. wide, composed of spar, mundle, and copper ore, but not to value.—JAMES RICHARDS: May 2.

NANTEOS AND PENRHILW.—In the Erystun deep adit east the lode is with out alteration to speak of since last reported on. In the 46, east of Penrhilw, the lode will yield about 10 cwt. of ore per fm. In the stope in the back of the same level, east and west of Jones's winze, the lode will, on an average, yield from 12 to 15 cwt. of ore per fm. In the 36 east the lode is looking more promising during the last 12 of driving. In the stope in the back of the same level, 30 and 40 fathoms east of Penrhilw, the lode, on an average, will yield about 8 cwt. of ore per fm.—MICHAEL BARREY: April 30.

NANTLE VALE SLATE QUARRY.—By the cost-sheet, and slate returns for April, you will see that the latter have fallen short of my expectation at the beginning of the month, in consequence of the preparations we had to make for pumping the water out and clearing the rubbish at the east quarry, which is now in very good working order; and, considering the amount of work done, I cannot but think that our progress during the past month has been favourable.—J. HOBBS: May 3.

NORTH BASSET.—At Grace's shaft, sinking under the 32 fm. level, the lode is 3 ft. wide, producing 3 tons of ore per fm. In the 32 fathom level, driving west, Grace's shaft, the lode is 2 ft. wide, producing 2 tons of ore per fm. In the 42 fm. level, driving west of Grace's shaft, the lode is 3 ft. wide, producing 4 tons of ore per fm. In the 52 fm. level, driving west of Grace's shaft, the lode is 3 ft. wide, producing 3 tons of ore per fm. In the 112 fm. level, west of the new shaft, the lode is 3 ft. wide, producing 1 ton of ore per fm.; in the 112 fm. level, east of the new shaft, the lode is 3 ft. wide, producing 2 tons of ore per fm.—T. GLANTIER: April 28.

NORTH FRANCES.—Yesterday our setting was as follows:—The 30 west, on Vernon's, by eight men, at 34. 5s. per fm. The 30 cross-cut to Vernon's, by six men, at 11l. per fm. The 44 cross-cut to Vernon's, by eight men, at 9l. per fm. The 40 cross-cut, south of eastern shaft, by six men, at 9l. per fm. We hope to hole the 30 cross-cut about the end of May, and the 44 a month after, and in those two months we shall probably drive 20 fms. further west on the lode; the lode is now 6 ft. wide, mostly gossan; there is not a finer looking lode in the whole district. If the 30 cross-cut were holed, we should much like to drive further west before sinking—say, 20 or 30 fathoms, at least; then, if the lode wears as good an appearance as at present, we must rise and sink upon it, so as to have a new shaft as speedily as possible, and throw the flat-rods to it, which are now working at Staisyb's. We have no lode yet in the cross-cut north of the engine-shaft, but have set it for another month.—THOMAS GARLAND: April 28.

NORTH BORTRIDGE.—We have nearly driven through the lode; it is not much improved since my last; it underlays very much, and the lode is very hard. By the appearance of the ground that came up from the Trial shaft about 40 yds, we shall soon have a change in the ground for the better.—J. KAY: May 3.

NORTH TOWY.—We have to-day set the engine-shaft to be sunk by eight men; the ground is hard, but we hope to commence the cross-cut to intersect the lode in the 20 before the end of next month. The cross-cut in the 10 fm. level, driving to intersect the main lode, is set to two men; the ground is much improved, and there is a branch in the end 3 in. wide, composed of gossan, spar, and spots of copper and lead; I think that we have about 4 feet further to drive before reaching the lode. We have not set the stope, but expect that they will be taken on tribute next week. We have 20 tons of lead dressed, which will be sampled on Monday next.—W. H. RAYMOND.

NORTH WHEAL LEISURE UNITED.—We are driving to cut North Whim Leisure lode to the west of where we opened on it, and hope to cut it in a few days, which will enable us to sink a few fathoms on its course; this is a very desirable object. The tributers are still raising fair quantities of ore, and the dressing is going on. We hope to sell a small parcel of tin the end of this month.—R. CLYDE: May 1.

NORTH WHEAL ROBERT.—No lode taken down in the 62 fm. level this week. The lode in the 52 fm. level is about 3 feet wide, with good spots of ore, a very promising lode. In the 42 end the lode is nearly 4 feet wide, saving work. The stope in the back of this level will yield 4 tons of good quality ore per fathom. The 30 end is producing about 1 ton per fathom. The eastern stope, in the back of this level, are just as last reported, yielding 2 tons per fathom; and the western stope about 1½ ton per fathom. At the trial shaft, on the western ground, we have commenced driving two ends, 30 fms. from surface. The lode in the west end is about 4½ feet wide, composed of gossan, spar, pryan, mundle, and greens, with good spots of lead. In the east end the lode is 4 feet wide, producing good stones of ore, with every prospect of improvement. The walls of our engine house are nearly up, and we hope to get it covered in this week. All other operations are progressing with satisfaction.—A. PAXON: May 1.

NORTH WHEAL UNITY.—The lode in the 46 fm. level continues much the same as last reported, and worth on an average about 10l. per fathom. We shall be able to commence working on the Moor lode next week.—H. STEPHENS: May 2.

OKEL TOR.—In the 20 the driving on the copper lode is proceeding in a north-east direction, to reach the north foot-wall of the lode; more than 6 ft. has been driven through it, and it contains copper ore for all that distance; the water appears to be flowing from that part of the lode not yet cut through, so there is a probability of the main part of the lode being still to cut. This is a most promising lode, and one of the largest in the district. The 20 west and the 35 east to the Alving lode being under the Tamar River, we are now driving in both levels direct to the lode; the ground in both places is a soft clay-slate, highly mineralised; in both places the lode is near at hand.—W. B. COLLINS.

OLD WHEAL BASSET.—The flat-lode in the rise in the back of the shallow level is poor. We have removed the men from this rise, and put them to drive the shallow level west; when this level is extended 4 fms. further west we can communicate from this level to the deep adit, by means of a winze about 4 fathoms, which will properly ventilate this part of the mine. We have now seven pitches working, and the tributers are in good spirits.—May 1.

PENBROKE AND EAST CRINNIS.—The winze sinking below the 50, east of Hunter's, on the north lode, will produce 4 tons of ore per fathom, worth 9l. per ton. We have 16 men employed stoping the back of this level; the average produce is 2 tons per fathom, worth 9l. per ton. In the 90, west of Reid's, the lode is 3 feet wide, and will produce 1½ ton per fathom, worth 9l. per ton. We are sorry to say the lode in the 142 cross-cut, south of Reid's, this week has been harder than usual, but the men are working well. In the 90, east of Smith's, the lode is 3 ft. wide, and will produce 4 tons per fathom, worth 6l. per ton.—East Crinnis. In the 134, east of copper shaft, the lode is 2 ft. wide, producing stones of ore. In the 134, east of winze shaft, we have not yet intersected the main lode, and, according to the dialling, we have about 2 fms. more to drive. In the 122 west, on Job's, the lode is 3 feet wide, producing good stones of copper ore. There is nothing new in any other of our levels since last reported. We have not taken down any of the tin lode during the past week, but shall do so next week, and will report its value.—W. ANNEAN: April 28.

PENQUEN SLATE QUARRIES.—Our rock is gradually improving, and we are now producing a large quantity of sawn and planed flooring. We have shipped 50 tons of slabs to Cardiff this week. We shall soon have the sawing and planing done by steam-power, as we have now got an engine for that purpose.—JOSEPH ANTON: May 3.

PERRAN WHEAL GEORGE.—We are progressing very favourably with the sinking of the engine-shaft, and the appearance of the lode is much the same as when I wrote you last.—R. DAVIES: April 28.

PRINCE ALBERT CONSOLS.—We have completed the shaft-plan, and are now engaged in cutting ground for the eastern. The eastern is now sinking, and as soon as possible we shall fix the 22 fm. lift in it, and also another shaft to sink the shaft with, as that will enable us to do the work much faster.—R. DAVIES: April 28.

RHOSWYDOL AND BACHEIDDON.—The 60 west is opening in ore ground; the end is richer than we have ever seen in this level. I have no doubt as we proceed westward beyond the ore ground the ore levels we shall find a rich lode. The plans in this level, for receiving the stuff from the upper levels and filling the wagons, have been completed. The 40, west end, is in a fine rich lode, worth upwards of 2 tons to the fathom. The opposite end,

SOUTH BOG.—Since my last we have cut a deal more water in the shaft sinking below the 35 ft. level, consequently have not made so much progress in sinking as I anticipated, but I hope to be in a position to commence cutting pit by the beginning of next week; the 35 ft. level, driving north, is a little easier for driving, but the lode is small and unproductive. The stopes under the 35 ft. level are quite as good as last reported, worth full 12s. per ton for lead ore. The 10 1/2 ft. level, east, driving south, is without alteration. There is no alteration to notice in the wine sinking below Powell's adit since last report; the rise in the back of the north lode in the 35 ft. level is not so productive as last reported, but still contains a little lead ore. The lode in the end of Powell's adit, driving east, is 2 ft. wide, at present poor and unproductive. —S. MORRIS: May 2.

SOUTH CORK.—Since November last the engine-shaft has been completed to the depth of 32 fms. below the surface of the old mine. At this depth the lode was anticipated, and found to consist, on the north, of flookan, quartz, and yellow ore, and on the south of compact grey stone, with grey ore, &c. In December a cross-cut was commenced, and driven south from the engine-shaft 3 fms. 2 feet, at a depth considered to be on a level with the bottom of the old mine. This cross-cut was made for the purpose of attaining the south part of the lode, which in that place is of considerable magnitude; finding, however, from the compact nature of the stone, that very little progress could be made, it was deemed more advisable to proceed with the driving towards the old mine, and discontinue the cross-cut. Accordingly, in Jan. last driving was commenced on the north part of the lode, which has since been extended about 22 fms. The flookan, or leading part of the lode, has maintained a uniformity of character throughout, having a northern dip of about 45° under the horizon, and which I have ascertained, at the depth of 32 fms. on the old lode, to be identical with the angle of the lode that has been wrought on there. The other portion of the lode has been very changeable. At the commencement of the driving it contained a variety of promising veins, and a portion of yellow ore, which continued about 9 fms. when the lode became more productive for copper, and continued for about 4 fms., in which distance about 3 tons of ore were obtained. Since then the lode has been unproductive, and only showing casual indications of copper. From the statements that have been made respecting the old works, the 30 ft. driving has reached the point where the richest part of the lode is said to have gone down in the bottom, and also the deepest part, according to the information derived from the same source. From a careful examination of the old mine, I perceive that the lode in the eastern part is precisely the same character as the lode in the 30 ft. driving. It is clear enough that the most productive portion of the lode was contiguous to the old mine, and which, from its easterly dip, considerably shortened the ore-bearing ground at every succeeding deeper level; and from such apparent cause, I am apprehensive that the ore-bearing ground in the bottom of the old mine will be found very restricted. The 30 ft. driving is now about 12 ft. on the course of the lode, under the bottom of the old mine—that is, presuming the old mine to be sunk 10 fms. on the course of the lode, under the perpendicular shaft. If the holding is not effected this week, I shall propose to rise into the old workings on the course of the lode. A visible change, however, has taken place within the last week; the lode is more promising in appearance, although I much regret to say that the prospects are not of that nature which might be expected from the representations that have been made. I consider it, however, highly desirable to continue the 30 driving west after the holding is effected. A few fathoms will, in all probability, reach the slide, and by cutting through it to the west may be attended with good results. It is not unlikely that as the lode has decreased in value in its downward course, on the eastern side of the slip, it may increase in value on the west. The ore has doubtless followed the channel of ground that is most congenial to it, and the channel appears plain to me to have dipped rapidly to the west. The present state of the ground is inexpensive, and can be driven with facility; and to ascertain the points I have referred to will neither require much time nor money. —P. TAYLOR: April 25.

SOUTH DEVON GREAT CONSOLS.—The ground in the engine-shaft continues without much alteration; fair progress is being made in sinking. In the end driving west in the 37 ft. level the lode is still disordered. Nothing of importance has been discovered in the adit cross-cut since my last report. —J. COCK: May 2.

SOUTH DOLCOATH AND CARNARVEN CONSOLS.—The pit-work is dropped to the bottom of the mines, and by Monday next we expect the water will be drawn out. By the end of another week we hope to be in a position to commence clearing the levels east and west of the engine-shaft. —W. ROBERTS: April 28.

SOUTH GARN BREA.—I have nothing new to report to you from this mine: the lode in the flat-roof shaft is yielding good stones of black and yellow copper ore. —THOMAS GLANVILLE: April 28.

SOUTH GREYER.—The engine-shaftmen are engaged putting in penthouse and taking up water in the 64 fathom level. In the 74 ft. level, east of engine-shaft, the lode is 2 1/2 ft. wide, producing 3 1/2 tons of ore per fm. In the 64 ft. level, east of engine-shaft, the lode is 2 1/2 ft. wide, producing 4 tons of good copper ore per fathom. At Gore's shaft, the lode is 2 1/2 ft. wide, producing 4 tons of good copper ore per fathom. In the 54 ft. level, east of Gore's shaft, there has been no lode taken down since last report. In the wine sinking below the 44 ft. level the lode is 1 1/2 ft. wide, producing stones of copper ore. The tribute pitches throughout the mine are the same as for some time past. —EDWARD CLEWIN: THOMAS DELBRIDGE: April 30.

SOUTH PROVIDENCE.—The 23 ft. level is driven under Penuluna's shaft; the men are engaged this week in rising the hole to this shaft, which is sunk 4 1/2 fms. below the 13 ft. level; the lode in the rise is very kindly, with a leader of good tin ore, worth 40s. per fm.; the stopes in the back over the 23 ft. level are just as last reported. The 15 ft. level west is suspended for the present for the want of ventilation; the tributaries in this level are getting good wages at 10s. in 11. The lode west in the valley is getting more settled as we are driving to hill: it will take back fast now, and with the improvements, I think in a few days more driving it will be good saving work. —E. WILLIAMS: May 2.

SOUTH WHEAL ROBERT.—In laying open the costean ground, I have discovered some large stones of gossan and mundle, impregnated with yellow copper ore. By those indications I have every reason to believe we are approaching another lode. I would recommend laying open the costean ground as fast as possible, the water being so favourable for surface operations, as I am confident there are other parallel lodes with the other two that are laid open. I have not yet discovered either of the old Parashill Wood lodes, neither the Walkhampton Consols lode, of which I am certain the whole of those lodes are true, and this is a great advantage. I have sent you a few more men to lay open these lodes as soon as possible. I have sent you a box of gossan, taken from the south lode to-day, for your inspection. —J. POMEROY: May 1.

SWANPOOL.—The new shaft is now communicated to the 40 ft. level, which will give ventilation, and facilitate our working the eastern part of the mine. The lode in the 30 ft. level, east of new shaft, is 2 ft. wide, composed of soft clay, spar, and mundle, with good stones of lead; this level is looking promising, and ground very congenial for lead. The stopes in the back of this level are looking well. The lode in the 40 ft. level, east of new shaft, is 1 1/2 ft. wide, composed of spar, flookan, and mundle, with spots of lead. The men from the 50 ft. level east are at present stopping on the south branch in the bottom of that level; this stop is looking kindly, producing lead of good quality. The stopes in the back of this level are looking pretty well. The lode in the 30 ft. level, west of engine-shaft, is 2 ft. wide, composed of flookan, spar, mundle, and lead intermixed—a kindly looking lode; we are rising in the back of this level to prove the lode, and give air to the level; this is a very kindly lode. In the rise, we expect to communicate to the 40 ft. level in a few days. We have suspended the working of the 60 fathom level for the present. The lode in the 10 ft. level, west of engine-shaft, is 2 ft. wide, composed of peach and mundle, intermixed with lead; the lode in the 70 ft. level, east of engine-shaft, is 2 ft. wide, composed of soft clay, mundle, and stones of lead; the ground about the lode is very congenial for lead. The 2 ft. level at the engine-shaft is getting more favourable for sinking. —J. FLEMING: May 2.

ST. AUUSTELL CONSOLS.—Dowson's shaft is sinking satisfactorily, and in about six weeks I hope to be down to the 25 ft. level, when a short time will then cut the lode; the ground is of rather a more favourable character. At Young's shaft we are driving on the course of the branch to meet the shoot of ore, but the ground is very hard, and this considerably retards the cutting of the shoot of ore. Both the sinks of the nickel are obliged to be suspended for the present, on account of the great quantity of water. In the end east, on the course of the lode in the 35 ft. level, the lode is very large, and contains strong indications of mineral. The new nickel branch, in the eastern end in the 25 ft. level, we have just commenced to open: from what I have seen of it, I am of opinion it will, after being opened out, be a fine branch of nickel. Should this branch prove productive, it will give us some thousands of pounds worth of ore, as we could soon open three levels on this branch. In the same end east, on the lode, we have a run of tin ground on the back of the lode, but the part of it, as we go east—that is, towards Dowson's shaft—shows strong indications of copper ore. We have all the pitches at work, except the copper pitch at Dowson's, and have several other pitches we shall set next week. You will receive particulars in setting sheet. —B. H. WILLIAMS: April 28.

TAKESIN.—During the past week we had twelve men stopping the bottom on No. 8 lode, east of No. 13, and two winces; it is not so good in appearance as it was last week; I must advance the price 10s. more for the next month. Two men were working the bottom on No. 13 lode, much the same as it was last week. Lead ore dressed, 12 tons. I mean to sample 20 tons of lead and 5 tons of copper ore next week, if it will meet your approbation. I beg to enclose you bills receipted for March cost-sheet. —WILLIAM WILLIAMS: April 28.

TAMAR MARIA.—The adit end has been driven east on the course of the lode in April 6 fms. The lode taken down is about 18 in. wide, and a little improved, having a run of tin on the north wall a small branch, 2 inches wide, composed of gossan and mundle. I am still of opinion that we shall have a further improvement as we extend east; this, I think, should be our great aim. Moreover, I hear they have an improvement in Latchley Consols, on the same lode, east of our present end. The ground in the end still improves; now set at 5s. 10s. per fathom, last price 6s. —J. HOBBS: May 1.

TAMAR SILVER-LEAD.—I am glad in being able to state that the mine is generally looking better. The lode in the end in the 215 ft. level is becoming productive, and now yields 5 cwt. of ore per fathom. In the wine sinking from the 205 ft. level, and just before the 215 end, it is worth 2 cwt. of ore per fm. In the 205 end the lode is 18 in. wide, and produces good stamps work. In the 190 ft. level the lode is 18 in. wide, and worth 15 cwt. of rich ore per fm.; the stopes in the level are now worth 6 cwt. as well as usual. In the 175 ft. level the lode is improved, and now yields 10 cwt. of ore per fm., and likely to become very shortly more productive. In the 160 and end of the 150 ft. level, the lode is 18 in. wide, and worth 10 cwt. as well as usual, as there will be no ore from the North Mine, and our operations have been somewhat impeded by the absolute necessity of repairing the machinery. —W. ROBERTS: April 30.

TEES SIDE.—Owing to a slight accident, our pumps have been a little delayed, but all is again well with them. The washing is going on steadily, and we hope to proceed without interruption. —A. WATSON: May 1.

THOMAS'S UNITED.—In the stopes in the back of the 60 end the lode is 2 ft. wide, producing fair quality work for lead. In the stopes in the back of the 60, west of engine-shaft, the lode is 30 in. wide, yielding about 7 1/2 tons of lead ore per fathom; in the stopes in the said level, east of Lloyd's wine, the lode is 3 feet wide, worth 8s. per fathom; in the stopes in the bottom of the 50, west of chain wine, is suspended, the lode having failed. In the 40 ft. level, driving east, there is no change worthy of remark since last reported on. We commenced the cross-cut north at the engine-shaft in the 40 on Thursday last. The crusher is still idle for want of water. —A. WATSON: April 30.

TINCOFF.—Highburrow lode, at Martin's east shaft, sinking below the 152 ft. level, is 5 ft. wide, worth about 16s. per fathom for tin. In the 153 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 154 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 155 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 156 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 157 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 158 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 159 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 160 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 161 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 162 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 163 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 164 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 165 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 166 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 167 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 168 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 169 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 170 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 171 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 172 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 173 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 174 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 175 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 176 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 177 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. In the 178 ft. level, driving east of the same shaft, the lode is 3 1/2 ft. wide, worth 12s. per fathom. 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WRYSGAN QUARRIES (NORTH WALES).—The new erections and surface operations are now progressing in a very satisfactory manner. We have experienced much trouble in the haulage of the machinery from the slakeyard to No. 1 landing, all of which, however, by timely precaution, has been effected without a single breakage or accident of any kind. The drums have been raised to their proper positions on both the inclines, and we have the wire-rope for the same brought up to the quarries. The machine-house at No. 2 is now being slated, and the water-wheel at this place is also in course of erection; when this is finished, the wheel at No. 6 will then be proceeded with, where the machine-house and pit are ready to receive the same. The slate dressers' sheds have also been commenced here. The weather being so exceedingly fine, advantage is taken of the circumstance to preserve the line of launders, which partly serve to convey the water to the new reservoir, by giving them a good coating of tar. When these new works are completed, which will now be the case in a very short time, a great monthly saving will be the result, as well in the economical working up the slate blocks by water-power as in the expenses of haulage by the use of the inclines. In the quarrying operations, the opening, tunnelling, and slate making is being prosecuted. The bargains on No. 2 floor are looking exceedingly well, and the last month's make from here was unusually large. In No. 3 little alteration has taken place, unless it be the production of a few more blocks. No. 4 continues much the same as last; this bargain being now fully opened into No. 5 (old floor) will immediately become a large and important one, from which we are justified in looking for a good supply of blocks. In No. 6, both bargains are without change. In No. 8 the level is being carried forward, and is at present in that portion of the band which is known to separate the productive bed of slate rock from the unprofitable band of schist. Reviewing the whole, I beg to state that the quarry has a very encouraging appearance, and when fully and properly opened promises ample returns. We require bargains at a greater depth than our present, and which desideratum is at our command; and which we are further warranted to make every effort to gain, as slates (dresses) which will, and has this very day, split eight to the inch, and as even as possible, is a circumstance which corroborates my views, and very much favours the suggestions I will from time to time make. The last month's make of slate was larger than any month this year, as you will see from the returns.—W. WILLIAMS: May 2.

YEOLAND CONSOLS.—The prospects of this mine are just the same as in my last report. The lode in the 46 fm. level is producing good work, but the progress has not been so fast as could be desired during the last few days, as the ground has been rather troublesome; it is, however, better now, and going on more satisfactorily; the stope in the back of this level are producing very good work, and more men will be put in this lode here in the near future. We are cutting the pit in the 56, preparatory to commencing another lode for tin. We shall proceed with the 56 east and west whilst the shaft is sinking. I think, if all goes on well, we shall more than pay our costs in the present quarter.—R. WILLIAMS: May 2.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, May 4, 1885.

COPPER.	£. s. d.	BRASS (sheets).....p. lb.	1 0 6 d.
Sheathing and bolts.....p. lb.	0 1 2	Wire.....	11 3 d.
Bottoms.....	0 1 3		
Old (Exchange).....	0 1 0 1/2		
Best selected.....p. ton	129 0 0	Foreign.....	22 10 0-25 10 0
Tough oak.....	126 0 0	To arrive.....	23 0 0—
Tin.....	126 0 0		
South American.....	—	In sheets.....	23 0 0—
IRON.	per Ton.	English, blocks.....	111 0 0—
*Bars, Welsh, in London.....	8 0 0	Ditto, Bars (in barrels).....	112 0 0—
*Ditto, to arrive.....	7 10 0-7 15 0	Ditto, Refined.....	114 0 0—
*Nail rods.....	8 0 0—	Bansa.....	111 0 0—
*Stafford, in London.....	8 10 0—	Straits.....	nom. 100 0-107 10 0
*Bars, ditto.....	8 0 0-9 0 0		
*Hoops, ditto.....	9 0 0-10 0 0		
*Sheets, single.....	8 15 0-10 10 0		
Pig, No. 1, in Wales.....	8 15 0-9 5 0		
Refined metal, ditto.....	8 15 0-9 5 0		
Bars, common, ditto.....	6 10 0-7 0 0		
Ditto, railway, ditto.....	6 3 0-6 10 0		
Ditto, Swedish, in Lond. 14.....	6 0 0-15 10 0		
Pig, No. 1, in Clyde.....	3 10 0-3 10 0		
LEAD.			
English Pig.....	22 10 0—		
Ditto sheet.....	23 0 0-23 10 0		
Ditto red lead.....	23 10 0—		
Ditto white.....	27 10 0-28 0 0		
Ditto patent shot.....	25 10 0—		
Spanish, in bond.....	21 0 0-22 0 0		
American.....	none.		
FOREIGN STEEL.			
Ditto, in foreign.....	0 0 0—		
Ditto, in foreign.....	0 0 0—		
English, Spring.....	22 0 0-24 0 0		
QUICKSILVER.....p. lb.	1s 10d-1s 11d		
* In Liverpool, 5s. per ton less.			
* At the works, 1s. to 1s. 6d. per box less.			

REMARKS.—Our market has maintained a steady appearance this week, although the amount of business transacted has been inconsiderable; prices differ but little from those inserted in our last Journal.

COPPER.—Owing to the improved demand for this metal, and the rather limited supply, smelters evince much firmness in prices; there is evidently a tendency to advance, as the standard has much improved, and the quantity of ores announced for the next sale at Swansea, on the 8th inst., is very small, being only 991 tons. During the week manufactured sheet has been bought freely for export to India.

IRON.—There is little or no alteration in the demand for English; prices are quoted as before. Staffordshire descriptions are quiet; rather less, if anything, doing in second quality. Scotch pigs have been inactive, but holders firm, at 60s.; the last day or two a slight improvement has taken place of 6d. to 9d. per ton, sellers quoting on 'Change to-day 60s. 9d., mixed numbers, good merchantable brands, f.o.b. in Glasgow.

LEAD.—A moderate enquiry lasts, at ruling rates.

SPELTEN.—A parcel has changed hands at 22 1/2s. 6d., and another, of 50 tons, at 22 1/2s. 10s., since which the market assumed a much better tone, there being a few buyers at 22 1/2s. 10s., but no sellers under 22 1/2s. On 'Change to-day, it was reported that in the course of the day a little lot of 5 tons had been forced on the market, and was sold at 22 1/2s.; but such insignificant transactions have very little weight with holders, although at such dull times as these they are extremely annoying to hear of. Our quotations, however, must be considered quite nominal, consumers generally holding off in anticipation of lower prices. The stock on the 30th April was merely 2400 tons, against 7132 in the same period last year, which is the lowest return published since Sept., 1849. Should any brisk enquiry set in it would, doubtless, advance 40s. to 50s. per ton.

TIN.—The demand for English is nothing beyond ordinary. Banca is not held quite so firmly. A parcel of good Straits has been sold at 107 1/2s. 10s.

TIN-PLATES have rather slackened in demand.

STEEL.—No transactions to report.

QUICKSILVER.—No large sales have taken place.

GLASGOW, MAY 3.—Since our last report, the pig-iron market has been characterised by great inactivity, but the price has remained very steady, about 60s. to 60s. 6d. per ton. The shipments are fair, but still they show a falling off of about 1000 tons, as compared with the corresponding week in 1884. There exists at present a pretty good demand for local consumption, which may tend to maintain prices for the time being. The news of the lowering of the Bank of England discount rate to 4 per cent. had a beneficial effect on our market to-day. A moderate business has been done at 60s. 3d. to 60s. 6d. cash, and also at 60s. 6d. fixed date, closing buyers at 60s. 6d. to 60s. 9d., and sellers at 61s.; No. 1, Gartsherrie, 65s. 6d.; No. 1, g.m.b., 61s. 9d.; No. 3, g.m.b., 60s. Shipments for the week ending April 28:—Foreign, 6875 tons; coastwise, 6113 tons = 12,988 tons. In the corresponding week of 1884 they were—Foreign, 4210 tons; coastwise, 9609 tons = 13,819 tons.

LIVERPOOL, MAY 3.—The demand for manufactured iron continues light at our quotations. Pig-iron has continued steady, the fluctuations not exceeding 6d. per ton during the week; to-day we closed very quiet, at 60s. for warrants. Tin-plates, dull of sale. Lead and Copper unchanged. The quotations are, for—Tin-plates, Charcoal, 10, Liverpool, 11 1/2s. per box; Coke, 10, 11 1/2s. Merchant Bar-Iron, Wales, 61 1/2s. per ton; Liverpool, 74 1/2s.

BOMBAY, APRIL 1.—We have to report a further fall in value in British and Swedish bar-iron, round and square rail rod, as also in sheet and hoop, and no transactions in any of these are reported. Lead is also dull, and the same may be said of sheet in tubs, but in faggots there is no change. Tin-plates and spelter quiet, and slightly easier in price. Copper has again advanced in value, and the market is very firm, but no sales are advised. Quicksilver dull.

PARIS, MAY 3.—Our metal market continues animated, and the rise reported in our last is fully maintained. English iron remains nominally the same, but no business has been done. Sheets are firm at former rates, ordinary English realising 47 fr. the 100 kilos. In other metals, there is little variation. In the departments, the trade appears in a very prosperous condition, and the cause is attributed to the fact that for nearly two years prices have been very high, merchants, during that period, buying only such quantities as they absolutely required, in the expectation that prices would surely fall in 1885; the consequence being that, at the present time, the warehouses are all empty, whilst demand is increasing for nearly every article. At St. Dizier, although there is not a large amount of business doing, prices are very firm. An Imperial decree, dated April 27th, adjourns the opening of the Exhibition until the 15th inst. Another decree, dated Monday, reduces the import duty on nitrates of soda and potash. They are to continue to pay 1 fr. per 100 kilos, from the countries beyond Cape Horn, or the Cape of Good Hope; but the duty is reduced from 7 fr. 50c. to 6 fr. from other countries of Europe, and from 30 fr. to 8 fr. for those within. Nitrates imported by foreign vessels, wherever they may be from, will only pay 11 fr., instead of 25 fr. the 100 kilos, as formerly. There will in future be a

drawback on the exportation of nitric acid of 5 fr. per 100 kilos, and of 30 centimes on sulphuric acid. With regard to the Belgian markets, the following is extracted from the *Journal de Commerce*:—"The new impulse which the metal trade has received during the last few months continues, and prices are firmly maintained. They speak of a reduction in the tariff, and it is thought that it will be assimilated with the French, which is considered more favourable to the ironmaster than ours. This alteration is very desirable, as it will be easy to compare the prices of the two countries. At Amsterdam, Banca tin has been freely dealt in at 65 1/2 fl., and there are now no sellers under 65 1/4 fl."

MUNES.—The market for dividend stocks has been well supported, and a fair demand kept up for a few promising progressive shares. At a large sale, by auction, of mortgaged shares in Tincroft, Vale of Towy, and one or two other mines, all the shares, we understand, were *bona fide* sold, and realised upwards of 3000l. Amongst dividend mines, South Frances have advanced to 380l., 400l.; Wheal Buller, 470l. to 490l.; Devon Great Consols, 365l.; Clifford, 210l.; North Bassett, 191. 10s. to 201.; West Bassett, 281. to 281. 10s.; South Tamar, 67.; East Tamar, 2s. 6d. to 7s. 6d.; Clifflah and Wentworth, 131. 10s.; West Frances, 171. to 191.; Wheal Kitty (Lelant), 251. to 271. 10s. Sortridge Consols have been flat since the meeting, 21. 15s. to 31. Wheal Pollard, 7s. 6d. to 12s. 6d.; Vale of Towy, 17s. 6d. to 11.; Stray Park, 101. 5s. to 101. 15s., in demand; Comfort, 51. 10s. to 61. 10s.; West Seton, 200l. to 210l.; Brewer, 151.; Nanteos, 11. 15s. In Crebor an improvement has taken place, and shares have advanced to 11. 12s. 6d.; Wheal Edwards, 21. 17s. 6d. to 31.; Zion, 11.; Tincroft, 21. 10s. to 31.

At Llandudno, the operations are progressing most favourably, several discoveries having been made, and the agent expects very considerably to increase the returns; the ores sold for December and January realised 1145l., and 150 tons, valued at 1200l., have been sampled for February and March. The mine, before it passed into the hands of Messrs. Taylor, returned ores from shallow levels to the value of 150,000l. At South Tolgus, an improvement has taken place at Mitchell's engine-shaft, sinking below the 90, where the lode is worth 2 tons of ore per fathom; the bottom levels are also looking better, and the mine may, before long, resume dividends. In Wheal Pollards there have been several transactions; the near completion of the engine has caused the demand for shares, which are in few hands: the mine is near West and South Caradon, Gomena, and Craddock Moor; and, from the fine lodes already opened upon, is of more than ordinary promise; the shaft is down 25 fathoms, and when the engine gets to work a cross-cut of 2 fms. will intersect at this depth one of the most favourable lodes. At the Vale of Towy, 75 tons of lead ore have been sampled, the produce of one month, and which will yield about 300l. profit: it is only a few weeks since we called attention to the great increase there would probably be in the returns of this mine, and also to the very low price of the shares, which since then have doubled in value, and still in good demand. At Herodafot, an improvement has taken place in the 106 fm. level, where the lode is yielding 8 cwt. per fm., and in the back of the level 1/2 ton per fm.; this, with the improved price of lead, may keep the mine going. Nanteos has this week paid its first dividend, of 1s. 6d. per share.

At the Merilyn meeting, it was determined to convene a special meeting of shareholders, to decide upon winding-up and realising the assets of the company. There were many shareholders, however, who strongly opposed it, for the particular reason that, although Merilyn itself, after yielding more than 40,000l. worth of lead, and paying large dividends, had failed in depth, and gave no hopes of again meeting cost, a new and promising acquisition had been made in Bryn-Ferod; and at the last meeting it had been resolved to put up flat-rods from Merilyn engine, a distance of 100 fms., to Bryn-Ferod shaft, and, although not completed, a considerable expenditure had taken place in consequence. The agent, too, assured the meeting that a good course of ore was known to be in the bottom of Bryn-Ferod shaft, and from which 10 tons of lead were raised a few months ago. Under these circumstances it appeared, and still seems to many, a great pity not to complete the rods, and see the bottom of the new mine; but, then, this would require a call of 2s. 6d. per share, and the result may be taken as a fair example of the unwillingness of shareholders to respond to calls, especially in lead mines, and where the royalties are so heavy. At the Herodafot meeting, held on the same day, the agents strongly advised continuing the mine, but as this, also, would involve a call of 5s., it was determined to wind-up.

We have received several communications from shareholders in West Providence, calling our attention to circular letters addressed to them by a perfect stranger, and which, whilst it has caused to many considerable annoyance, others have been led by it to sacrifice their shares. In the letters, all emanating from one person, giving an address at Furnival's Inn, it is stated that West Providence is rapidly declining; that "if all the stores were charged up it would be impossible to pay a dividend; the ore ground has been all 'bitten away,' and both time and money will be required to put the mine even in fair working order." Notwithstanding, however, such a desperate state of affairs, the writer goes on to say that for West Providence he will give five shares in a mine (Trehan) "paying regularly 27 1/2 per cent. on present prices, and with a probable market value of 200 per cent. above the quotation of the day;" or, in another mine, called Fintown, "a property where a rise of 300 per cent. above the present price may be expected," he will supply shares at 10s. each for West Providence at 14s. Now, if West Providence really be in the poor state this person describes, it certainly does seem strange that he should appear so anxious to give such very valuable property for the shares, displaying, as one correspondent very aptly remarks, "an amount of disinterested benevolence to a perfect stranger, for which, in these days, one is scarcely prepared." And we mention the subject that the attention of the purser may be directed to it.

DIVIDENDS DECLARED DURING APRIL.

	Per share.	Amount.
Company of Copper Miners—Stock.....	£ 1 0 0	£ 3000 0 0
Ditto—Preference Shares.....	£ 1 17 6	22500 0 0
Wheal Bassett.....	20 0 0	5120 0 0
Foxdale (Isle of Man).....	2 0 0	4480 0 0
Botallack.....	7 0 0	1400 0 0
Alfred Consols.....	0 4 0	1224 0 0
West Wheal Seton.....	5 0 0	1000 0 0
South Tamar.....	0 2 6	750 0 0
Wheal Clifford.....	2 13 3	696 8 3
Wheal Arthur.....	0 10 0	614 0 0
Nanteos and Penrhin.....	0 1 6	375 0 0

At Nanteos and Penrhin Consolidated Mines meeting, on Monday (Mr. Thomas Field in the chair), the accounts showed—Balance last account, 5051. 13s. 6d.; lead ore sold, 5117. 3s. 1d.;—13164. 10s. 7d.—Mine cost, Oct. 1854, to Feb., 6251. 16s. 2d.; royalty, 1-12th, 671. 3s. 10d.; purser's salary, &c., 511. 10s.; leaving balance in favour of adventurers, 5891. 6s. 7d. A dividend of 1s. 6d. per share (37 1/2) was declared. The proceedings terminated with a vote of thanks to the chairman.

At the Eym (Derbyshire) Mining Company meeting, on 27th April (Mr. J. Pitt in the chair), the accounts for the year showed—Ore sold, 82314; mine cost, rectory title, and dues, 42111; leaving balance profit, 39003, which the shareholders have received in five dividends during the year. The chairman stated that they had offered 60 1/2 tons of ore for sale, but as there was only one bidder, they withdrew it. There would be another sale in a fortnight, by which time they hoped to have 35 tons, which would realise upwards of 1200l., and out of which, he had no doubt, they would be able to declare a dividend. He believed they would ultimately have, for their own protection, to become smelters as well as miners; for the buyers of ore, acting in concert, had divided Derbyshire into districts; the apparent understanding amongst them being, that certain of them should have the market in one district to themselves, and by that means keep the ore cheaper. This company intended to frustrate this combination,—"there was a smelting mill belonging to the district which he believed they could take. Mr. George Malby (the agent) then read his report, which was considered satisfactory. Messrs. R. Mitchell, G. Hawksley, C. Goodwin, J. Elliott, F. J. Mercer, and W. Hobson, were re-elected the committee, and Messrs. J. B. Roberts and W. Greenwood the auditors for the ensuing year.

At Merilyn Mine meeting, on Thursday (Mr. R. W. Williams in the chair), the accounts showed—Balance last account, 131. 10s. 7d.; loan from London Joint-Stock Bank, 4501. = 4631. 10s. 7d.—Mine cost, Feb. and part of March, 3771. 10s. 5d.; loan, J. Watson, 401.; royalty to the 11th of January, 411. 18s. 6d.; London Joint-Stock Bank, interest on loan, 15s. 1d.; dividend, 11. 15s.; leaving balance in favour of mine, 11. 5s. 7d. The loss on the February and March workings was 2704. 6s. 2d., and the balance of liabilities over assets, 4991. 10s. 11d. Mr. W. Ramsden reported that they were progressing favourably in widening Bryn-Ferod shaft, had got through the deads, and were now in solid ground.

At Garrog Mine meeting, on Thursday (Mr. G. Mackay in the chair), the accounts showed—Balance last account, 1251. 11s. 6d.; calls received, 222. 16s. = 3471. 7s. 6d.—Mine cost, February and March, 2381. 9s.; leaving balance in hand, 1091. 18s. 6d. The balance of assets (including unpaid calls, 2441. 12s.) over liabilities was 1421. 18s. 8d. Mr. W. Ramsden reported that they were progressing favourably with the building for the pumping-engine. They had a fine lode running nearly east and west in the shaft, varying from 2 to 4 in. of lead ore.

At the Hawkmoor Mine quarterly meeting, on the 25th April, the accounts showed—Balance last account, 511. 13s.; received for copper ore and carriage, 7231. 5s. 10d.; calls, 6731. 7s. = 14871. 5s. 10d.—Paid balance of Nov. cost, 571. 5s. 1d.; Dec., 2351. 10s. 2d.; Jan., 2951. 4s. 3d.; Feb., 2951. 8s. 6d.; paid sundry merchants, 1171. 14s. 5d.; lord's dues, 381. 8s. 7d.; for new water-wheel, 3441. 5s.; discount on ore bills, 71. 2s.; London charges, three months, 261. 5s. 5d.; committee's allowance, three months, 121. 10s.; leaving balance to next account, 441. 7s. 3d. The liabilities to the 1st June are 17091. 12s. 1d.; the assets, 8901. 9s. 3d.—showing a deficiency of 8191. 11s. 10d.; to meet which a call of 2s. per 8192d share was made—say, 8191. 4s. The eastern shaft was sinking on the course of the lode, and down 3 fms. under the 30, in a good and productive lode, worth 5 tons of copper ore per fm. The stope in the back of the level continues productive of good quality ore: 47 tons, the produce of last month, are for sale on Thursday week.

At Tregardock Mine meeting, on the 27th April (Capt. Sweeney, R.N. in the chair), the accounts showed a balance of liabilities over assets, including February and March cost, 304. 4s. 3d. Capt. Penrose reported that—"The deep adit is driven east about 153 fms. on the course of the lode. In the greater part of this driving the lode was very poor, but the last 15 or 16 fms. it presented a much better appearance, producing from 3 to 10 cwt. of silver-lead ore per fathom; at present the adit is suspended, and latterly the men have been stopping the back on tribute, at 11s. in 11, which bargain will terminate by the end of this month. I expect they will have nearly 3 tons of ore, and the adventurers will have about 2 1/2 tons of ore, which clearly shows we are in ore ground. About 30 or 40 fms. before the end a former company drove a shaft-ore adit, and sank a shaft 10 or 12 fms. deep, where they rose several parcels of lead ore, and it is said some good bunches have gone down, where they could not work for water. The deep adit will come in from 30 to 40 fms. under this, where we may calculate on raising some quantities of ore without water charges, having such considerable backs, and the ground moderately easy. If this piece of ground could be driven and holed to the old men's works, most likely several parcels on tribute could be sent to good advantage; to do this a call must be made of (say) 1s. With the ore which we might raise, I think we could effect this work, which I expect would put us in a remunerative position. If the shareholders will not consent to a small call, I would advise them to sell the materials and wind up the concern." Captain Penrose was instructed to continue the deep adit until it comes under the ore ground alluded to in his report. A call of 5s. per share was made.

At North Pool Mine meeting, on Tuesday, the accounts showed—Balance last account, 3151. 8s. 5d.; ore sold, Feb. and March, 1792. 16s. 9d.; 2101. 5s. 2d.—Mine cost, merchants' bills, &c., Jan. and Feb., 1897. 18s. 10d.; leaving balance in favour of mine, 2101. 6s. 4d.

At East Pool Mine meeting, on Monday, the accounts showed—By ore sold in February, March, and April (less dues), 2361. 0s. 5d.; water drainage, 161. (less credited on account of tin last account, 3001.) = 25751. 0s. 5d.—Balance from last account, 4951. 5s.; mine costs and merchants' bills, Feb. and March, 18421. 10s. 6d.; leaving balance in favour of mine, 2371. 4s. 11d.

At Wheal Trelawny meeting, on Monday, the accounts showed a balance of 5711. 6s. 3d. in favour of adventurers.

At Butterdon Mine meeting, on Monday, the accounts showed a balance of 1741. 4s. 8d. against adventurers. A call of 10s. per share was made.

At Penhauger Mine meeting, on Monday, a call of 1s. was made. At Gomena Mine meeting, on Monday, the accounts showed—Balance from last account, 641. 11s. 4d.; calls received, 5121. = 5961. 11s. 4d.—Mine cost, 2591. 19s. 6d.; merchants' bills, 1961. 14s. 11d.; leaving balance in favour of adventurers, 1391. 16s. 11d. A call of 10s. per share was made. Messrs. Venning, Brendon, and Hington, were appointed a committee, to act with the purser and agents in purchasing a suitable engine for crushing and stamping the ores. Capt. Trewen and Buzza reported favourably on the state of the mine.

At Craddock Moor Mine meeting, on Monday, the accounts showed—Balance from last account, 2504. 7s. 9d.; calls received, 2651. 15s. = 5154. 2s. 91.—Mine cost, 1761. 6s. 3d.; merchants' bills, 831. 15s. 6d.; West Craddock Moor purchases, 101. 1s. 2d.; leaving balance in favour of adventurers, 1371. 19s. 11d. A call of 5s. per share was made. Captain Henry Taylor reported that the engine-shaft was sunk about 3 fms. under the 42. They had communicated in the 32 east to the wins on Vivian's lode. The lode west in this level was 2 ft. wide, and would yield full 1 ton of copper ore per fm. They were preparing dressing-floors for the ore now at surface.

At Mizen Head Mining Company meeting, on Monday (Mr. Rabies in the chair), a report of the committee of investigation, inserted in another column, was submitted. Messrs. Lowe, Hackett, and Herrman, were appointed as trustees, and Messrs. Hackett, Wilkins, Lowe, Rabies, and Herrman, the committee of management. The proceedings were adjourned until the 14th inst., the committee in the mean time to report as to raising additional capital, or winding-up the company. The business terminated with a vote of thanks to the chairman.

At the Clifflah and Wentworth Mines meeting, on Wednesday, the accounts showed a balance against the mine of 14671. 10s. 3d. The agents' report stated they expected to reach the 50 in three months. In a winze sinking below the 20 the lode was worth 201. per fm.; the 30 east 121. per fm.; the east end in the 40 worth 71. per fm.; west 121. per fm. They calculate, in driving the 50 fm. level, on laying open from between the 40 and 50 fm. levels not less than 1300 tons of ore, and compute the ore standing in the backs of the 30 and 20 fm. levels at 1000 tons. A call of 20s. per share was made.

At the Clew Bay Mine meeting, on the 26th April (Mr. R. Boyle in the chair), the directors' report was read, and a detailed account thereof will be found in another column. The company have been successful in two actions, and now have no apprehension that their right to the property will ever be disturbed by any successful action; but they do not deny that Sir R. A. O'Donnell may, by a writ of error, during the next 20 years, again make the right to the mine a subject of litigation, although, after the decision of two superior courts of law, it is doubtful whether he would ever carry the case further. A call of 2s. per each new share was made.

At the Grey Mare Mine meeting, on Monday, the committee's report stated that they had commenced shipping ore according to their contract for 10,000 tons, and that within the last three weeks they have shipped 207 tons, and Captain Waine informed them he should send off 300 tons within the next month, and that the quantity will be considerably increased the following months. In answer to the circular sent to shareholders, proposing the cancelling the unallotted shares, he appeared not to be the unanimous wish that such a course should be adopted; they had, therefore, no alternative but to recommend the issuing them at p.v. The committee and auditors were re-elected, and a resolution passed that the unallotted shares should be issued at par. The report from the captain is among the British Mines.

At Buller and Bassett United Mines meeting, on Monday, the accounts showed a balance in favour of adventurers of 23381., after charging 400l. for the steam pumping-engine. Several practical managers of the mines in their district met Mr. Tredinnick, the London manager, upon the spot, and went fully into the subject of the best and most speedy method of developing the lodes, when it was resolved to make Vickers' the chief engine-shaft. The engine-house was contracted to be built at 2s. 11d. per perch, and completed within 10 weeks, and it anticipated that the shaft could be set on 30 fms. deeper by the time the engine erect the engine. Capt. Peter Floyd reported that Vickers' engine-shaft was sunk about 4 fms. since the last meeting. The flat-rod shaft was cleared up and cased to the adit level. The smiths, carpenters, and other surface operations were completed, and active operations were being carried out to develop the mines in the most economical and practical manner.

At the Union Tin Mining Company meeting, yesterday (Mr. Lambert in the chair), a statement of accounts was submitted, from which it appeared that the amount of liabilities was 15881. 10s. 2d., against which the assets, consisting of all unpaid and shares unissued, amounted to 9521. 10s. Mr. Marrough, M.P., proposed that an account be opened with the London and Lancashire Bank, and that the secretary apply to those shareholders with that such a course should be adopted; they had, therefore, no alternative but to recommend the issuing them at p.v. The committee and auditors were re-elected, and a resolution passed that the unallotted shares should be issued at par. The report from the captain is among the British Mines.

The Barytes Company of Ireland quarterly meeting was held at the offices, Walbrook House, Walbrook, on Wednesday. Mr. John Power (the chairman) informed the meeting that, in consequence of the limited number of the committee of management, great difficulty had existed in obtaining the necessary attendance to form a quorum; under these circumstances, he considered it advisable that the shareholders should at once proceed to the election of a sufficient number of gentlemen to secure a regular attendance in future, and the following adventurers were unanimously elected:—Messrs. De Blaquiere, Goodchap, Longueux, Roberts, and Routh, with power to add to their number; and it was further resolved that the meeting be adjourned until Thursday, the 10th inst., at one o'clock, to enable the committee to prepare the accounts and report on the present position of the company. From the statements which were made at the meeting, it appears that the operations at the mines were of the most satisfactory nature, and the success of the undertaking had exceeded all expectation. A vote of thanks having been moved to the chairman, the meeting adjourned.

The Holmbush Mining Company convened a meeting for yesterday, for the purpose of having the mine inspected by some competent party, and Mr. John Hitehins has been employed for that purpose, but in consequence of that gentleman not having had sufficient time to furnish the reports, the proceedings were adjourned until Wednesday, the 16th instant.

At Tregonabris and Carnebone Fat-work Mine general meeting, on Monday, a call of 5s. per share was made.

A special meeting of East Wheal George adventurers will shortly be held, to determine upon the steps to be taken relative to unpaid calls, and the future prosecution of the mine.

Foxdale, Newtonards, Wheal Mary Ann, North Wh. Trelawny, Esgrai Mwyn, Caylan, and Rhosydd, have sold lead ore.

Millpool, Wheal Enys, Hemerdon Consols, Wheal Guakus, Pednars-drea United, Rix Hill, Ballewidden United, Wheal Trevelyan, and Great Polgoth, have sold black tin.

Great Polgoth sold on Tuesday 10 tons 9 cwt. 2 qrs. 13 lbs. black tin. At Hemerdon Cons

From Darren Mine, Capt. Arthur Waters reports that in the deep adit level, west of cross-cut, the part of the lode being carried is about 2 ft. wide, yielding good stones of lead ore. The whole of the last sampling is shipped, and they have now about 15 tons of ore broken in the mine, which will be dressed without delay.

At Grampian and St. Aubyn, there is a great improvement. The lode in the 12 ft. level is looking very promising, and the gossan lode, which was seen in the adit, was cut last week in the 12 cross-cut. It contains good stones of ore, and has improved on being driven on. Richard's lode, in the 24 cross-cut, is not yet reached, but it probably will be cut before the month expires. The returns of copper and tin are increasing.

At Great Sordridge Consols, in sinking the shaft they have an excellent channel of ground of buff-colored killas, and in timbering up the shaft they cut down part of the lode.

At the Prince of Wales Gold Mine, the crushing machinery was started last Friday, and answers well, but, from scarcity of water, cannot be worked more than one hour in the twenty-four. It was made by Messrs. De Winton and Thomas, of Carnarvon.

At the Clogau Mine, some fine gold-bearing quartz was raised this week. The Great Cambrian Mine was inspected by Captain Paul this week.

In our next Journal we hope to have the result of Mr. Harris's experiment upon the gold quartz of this mine.

From the Caegyrion Mines, Mr. Chas. Low's eighth series of assays show an average of 2.17 dwts. 17.2 grs. of fine gold per ton of quartz.

From the Great Cambrian Mines, Mr. Calvert's assays produced at the rate of 168 ozs. of fine gold per ton of quartz; of 5 ozs. 10 dwts. per ton of quartz; and 16½ dwts. per ton of blende.

During the week, shares have changed hands in the following:—

DIVIDEND MINES.—Comford, Devon Great Consols, Drake Walls, Nantowen and Penrhyn, North Wales, South Tamar, South Wales, Tincroft, Trehan, West Basset, West Providence, West Wheel, Wheel Arthur, Wheel Buller, Wheel Clifford, Wheel Wrey, Mining Company of Ireland.

MINES WHICH HAVE SOLD ONE.—Bell and Llanarth, Cae-Gymon, Callington, Caylan, Cribet, Cwm Daren, Eglwysbrock, East Basset, East Tamar, East Wheel Rose, Grampian and St. Aubyn, Great Sheba Consols, Great Wheel Baddern, Kilbricken, Micon Great Consols, Nant-y-Car, North Wheel Robert, Orsedd, Rhedol United, Sordridge Consols, South G. South Carn Brea, South Providence, South Wh. Croft, Tassan, Trebarvah, Vale of Towy, West Foberro, West Wales, West Wh. Crebhor, Wheel Bays, Wheel Harriet, Wheel Killy (Uny Llan), Wheel Langford, Wheel Tolly, Wheel Zion.

MINES WHICH HAVE NOT SOLD ONE.—Buller and Basset United, Carvath United, East Caradon, Great Sordridge, Kilrann, South Buller and West Penrith, Trellin Consols, Wheel Edward, Wheel Polard.

In Foreign Mines, some activity has been exhibited, and United Mexican shares have occupied the attention of speculators during the week, in consequence of the favourable reports; they have been dealt in as high as 7½, but yesterday they were weaker, a considerable amount of business being done at 7, 6½, 6¼, 6⅓, and finally closed at 6½. Cobre Copper have also advanced, shares having changed hands at 5½ to 5¼, and the closing quotation was 5¼ to 5½. Transactions were effected yesterday in Imperial Brazilian at 2½, and in St. John del Rey at 3½. The following were the last prices officially marked:—National Brazilian, 2½ to 3; Clarendon of Jamaica, ½ to ¾; Copiapo, 2½ to 3; La Fortuna, 1½ to 2; Linares, 1 to 1½; Lusitania, ½ to ¾; Pongibaud, 1½ to 2; and Royal Santiago, ¾ to 1.

At the Agua Fria Gold Mining Company meeting, on Monday (Prof. Ansd in the chair), it was reported that, out of the 10,000 additional capital required, only 7,000 had been subscribed. A resolution was passed, increasing the rate of interest on the debentures to 15 per cent with the addition of 5 per cent. The proceedings, which are fully reported in another column, terminated with a vote of thanks to the chairman.

The first Mining Association yesterday dispatched from Sunderland their first cargo of coal this season to the works. Notwithstanding the enhanced freight, owing to the blockade of the White Sea, it is not anticipated they will experience any difficulty in obtaining vessels to carry their coal, so that the smelting operations will not be impeded. A vessel is loading at Swansea with a general cargo for the works.

The Royal Santiago Mining Company have received advices, dated Cobre, March 31, from which the following particulars are extracted:—

TAYLOR'S.—The lode in the engine-shaft is between 6 and 7 feet wide; the western part has still the most promising appearance, and will produce about 3½ tons of ore per fathom; sunk this month 5 feet. We should have sunk 3 feet more, had it not been that we had to take abroad all the well-work of the engine; also put on a new pump, and new bucket-rods, put in a set of timber, stays, &c.; and if no accident should occur, we shall sink 8 or 9 feet next month. In the 62 ft. level east we have driven 3 ft. to the south, and have not met with any more lode. We have resumed driving east; the lode is 3 feet wide, producing occasionally good stones of ore; driven this month 7 ft. 4 in. In the 62 ft. level, south of west, the ground appears to be a little easier for driving, and more like the strata in the 56—we hope to take the lode shortly; driven this month 12 ft. 9 in. In the 56 ft. level west the lode is 4 feet wide, of a more promising appearance than last reported, and will produce 4½ tons of ore per fathom; driven this month 23 ft. 8 in. The 56 ft. level east has been driven this month 1 ft. 4 in. In driving north in this level we have not discovered the lode east of the shaft; driven this month 12 ft. 8 in. In the 44 ft. level west the lode is 4 feet wide, and will produce 4 tons of ore per fathom; it is looking promising for a great improvement, and has been driven this month 31 ft. 9 in. We have commenced the winze in the bottom of this level to the 56 (sunk this month 26 ft. 10 in.), and have now commenced to stop east from the winze in the bottom of the 44, where the lode is from 5 to 6 feet wide, and will turn out 5 tons of ore per fathom. We expect this stop will improve as we go down with it. The lode in the stopes in the bottom of the 44 east is 3½ feet wide, and will produce 2 tons of ore per fathom; stopped this month 6 feet. In the stopes in the back of the 33 east the lode is large, and will produce 3½ tons of ore per fathom; stopped this month 34 ft. In the 32 ft. level south of west the ground is improved for driving, and I think we are not far from the lode; driven this month 12 ft. 2 in.

ANGELITA.—The lode in the adit level, east of Discovery shaft, is 4 feet wide, and will produce 2 tons of ore per fathom; driven this month 10 ft. 3 in.; the lode in the winze in the bottom of this level is not quite so large as it has been, but will produce 2 tons of ore per fathom—sunk this month 11 ft. 9 in. The lode in the back of the adit, west of Discovery shaft, is 3 feet wide, and will produce 3 tons of ore per fathom; stopped this month 15 ft. In the 10 ft. level, west of Discovery shaft, we have met with a kind of blende, or siliceous, upon which was a very good stone of ore; driven this month 12 ft. 8 in. We have now set the men to drive north in search of the lode. The lode in the stopes in the back of this level is from 5 to 6 feet wide, and will produce 2 tons of ore per fathom; stopped this month 13 ft. 1 in.; the lode in the 10 ft. level, east of Discovery shaft, is 2 feet wide; in the bottom of this level we have a good stone of grey and red ore; driven this month 4 ft. 1 in. We have had to put in several sets of timber in Discovery shaft since my last report; but yesterday I was able to get in the eastern level in 20 ft. below level, where the lode is about 2 ft. wide, and from which I broke some good stones of copper ore. There is some siliceous in the western level and in the shaft, which will be cleared immediately, then we shall commence to drive the levels east and west, also sink the shaft, and in my next I hope to give a full report on the same. I do not think the water will be much hindrance in the sinking.

NEW ISABELITA.—We have not holed this shaft as yet; rose this month 9 ft. 10 in.; went to hole shortly.

LA PAZ.—We shall commence to sink this shaft again next week. **GOLDENMOUNT.**—We have cleared, timbered, and secured this shaft to the bottom, and sunk 5 ft. to the north, and the north part, for 6 feet wide, is composed of spar, prill, peach, mundle, and good stones of ore, but nothing to value as yet; altogether it has a kindly appearance for producing ore in depth, and we can keep the water with mules in the winze. Our raisings for the month are as follows:—Yellow ditto, 110 tons; grey ditto, 24; ragging, 7; yellow stone, 9; grey ditto, 3; precipitate, 4; total, 155 tons ore, and 4 tons precipitate.

The United Mexican Mining Association have received despatches from the assistant commissioner, dated March 30th, of which the following are extracts:—**USE OF RAYAS.**—The favourable change in this mine has been sustained throughout the month, and the operations of the five weeks have resulted in a profit of \$3005. The working from which the extra produce is derived continues to look hopefully, and should no untoward circumstances occur, the amount of loss incurred in the operations of last year will soon be cleared off, and the succeeding profits be applied to the extinction of the mine debt.

MINE OF JESUS MARIA.—The operations of the current month have produced much the same results as those of the antecedent one, and which, taken upon the whole, may be considered as favourable. In the fronts of San Juan, 11 varas have been driven in the five weeks. The vein in this point is apparently suffering from some disarrangement, as it is variable, and somewhat broken up by occasional intersections of poor rock. In the pass of Santo Tomas, and in two works diverging from it, the ore has been coming out good, both in quantity and in quality. The extraction of the five weeks has amounted to 598 cargas, which have been sent to Dolores for reduction. It must be borne in mind that our operation is limited to works above the level of San Juan, and to that level itself, for any attempt to sink deeper is frustrated by the presence of water; and in such a position must we continue until the new shaft is of sufficient depth to assist us in relieving the vein of the water it contains. This water is not so abundant as to cause any great expense or difficulty in getting out, when the proper means for so doing are at hand, but until those means are provided it proves a serious drawback. It, therefore, follows that the weekly extraction is derived from the fronts of San Juan and the workings in Santo Tomas, and I think that it argues well for the future value and productiveness of the mine that so respectable a weekly produce is to be extracted from so limited an extent of workings. The new shaft has been sunk in the month 11½ varas, in favourable ground for driving.

MINE OF LA TRINIDAD.—Since the last report, the operations in this mine have been continued very favourably. The cross-out of St. Arcadio was carried on until the lower wall of the cuerpo was reached, and was then stopped, the entire width of the vein being 9½ varas. The fronts to the north, which bears the name of Arcadio, have been carried on 10½ varas without any material change, further than a decrease in the quality of the ore in the body of the vein. The strip of good ore continues in the whole of this working, and seems to make northwards of the pozos of St. Carmen. A corresponding frente to the south, called La Trinidad, has also been opened, and been pursued 7 varas, all in fair ore. Two days ago a block of mountain rock has come across the lode here, and has reduced the width of the ore to 1 var. The shaft was re-commenced on the 20th inst., and has been sunk 1½ varas. In it we have hit upon a rich strip, or costa, and have extracted some very rich stones. We have got a little deeper, and begin to go down upon the lode, we shall probably have an increased extraction of cargas. The ore remitted to the hacienda in the five weeks has been 533 cargas. On the whole, the prospects of the mine are highly encouraging. The workings of the month have proved that we have at least 13 varas of ore along the vein, with a hope of a further extension in the lateral workings or frentes. It now remains to be seen whether it also continues downwards, and that will be very important in the sinking of the shaft in the coming month. Should such prove to be the case, the extraction will very soon pay the weekly outlay, and lead to a reasonable anticipation of handsome profit for the future.

MINE OF ALBARRA.—With reference to the last report on this mine, I have now to inform you that I have, after mature consideration, commenced to carry on the level northwards of Refugio, as the best and cheapest mode of pursuing a partial exploration of the lode, at an insignificant increase of outlay upon the money hitherto expended, to keep possession of the property. In three weeks the work has been advanced with intersecting strata, and as yet very crude and unformed in its nature. Still, I do not think the class of stone which it is found, and should think it not unlikely that an increased depth a chance for the better might be met with. This, I must, however, be taken into consideration at a future date, my present object being simply

to retain the mine, and apply the money required to be spent to as useful a purpose as possible.

FINANCIAL IN MEXICO.—The usual monthly statement of receipts and expenditure, brought down to March 31st, shows an asset in hand of \$16,880, subject to the usual liabilities. A further available asset of \$20,000 exists in the hands of the agents in Mexico, to be drawn for as opportunities may present.

QUICKSILVER.—The price of this article is \$64 per quintal, cash; but I have purchased a small parcel of 25½ quintals at \$62, to keep up the stock at Dolores, which now amounts to 9395 lbs.

La Fortuna Mining Company have advices, dated Linares, April 23:—

"At Canada Insova, we are proceeding fairly with clearing the engine-shaft under the third level. The water is now down about 5 fathoms. We find that on the western end of the shaft the lode has been extensively worked. In one small arch remaining the lode appears to have been worked from 2 to 3 tons in a fathom. East of Taylor's engine-shaft, we have cleared the third level, which we find driven for a very short distance. We cannot resume driving this level until we have cleared the engine-shaft, as both operations cannot be carried on simultaneously. This end is working 1½ ton of lead ore per fathom, and we shall commence to drive it as soon as possible.

We have about 20 fathoms more to clear west in the second level to reach O'Shea's shaft, from whence we are now cross-cutting to the lode, and are getting a winze ready to fix on the shaft. We hope to find a winze in this further clearing, so as to continue clearing the third level west, where the small amount of ventilation at present hinders us from working. We are sinking Addis's winze-shaft under the second level, ground hard. Taylor's winze-shaft is sinking satisfactorily under the second level. We are also stopping in the bottom of the second level, so as to give passage to the water from the eastern part of the mine, and enable us to clear and open the same in that direction. At Salidos, the engine-house is covered in. The hob is pressed to arrive here early in May, when no time will be lost in getting the engine together.

The San Fernando Mining Company have despatches, under date April 14:—

"The San Enrique Shaft: The 60 vara level has been driven east in the past month 9 in., and is re-set to four men, at 500 reales per vara; lode worth about 1 ton of lead ore per fathom. The 80 vara level has been driven 2 varas 0 ft. 3 in., and is re-set to four men, at 350 reales per vara; lode worth about 1 ton of lead ore per fathom. This level west has been extended 2 varas 1 ft. 3 in., and is re-set to four men, at 250 reales per vara; lode worth about ½ ton of lead ore per fathom. The 100 vara level has been driven east 1 ft. 6 in., and is re-set to four men, at 550 reales per vara; lode worth about 1½ ton of lead ore per fathom; this level west has been driven 1 vara 1 ft. 8 in., and is again re-set to four men, at 550 reales per vara; lode worth about 1½ ton of lead ore per fathom. —Abandon Shaft: The 80 vara level east has been driven 1 vara 1 ft. 3 in., and is re-set to four men, at 300 reales per vara; lode worth about 1 ton of lead ore per fathom. The 100 vara level east has been extended 1 vara 1 ft. 3 in., and is re-set to four men, at 350 reales per vara; lode worth about 1½ ton of lead ore per fathom. The winze sinking under the 60 vara level, east of shaft, has been sunk 1 vara 9 feet 2 in.; lode large, but not to value, and is re-set to four men, at 250 reales per vara. The stopes generally are looking well. We have at present 20 tribute patches working, at an average tribute of 3½ reales per arroba, which are producing fair quantities of ore. Ore weighed in for the month, 17,500 arrobas, or 200 tons; and we calculate about the same quantity for April. Our underground operations generally have been greatly impeded, owing to the excessive rains. —J. KEMMAY; J. G. KEMMAY."

The Lusitania Mining Company have advices from Capt. T. Chegwinn, their mining agent at the Palal Mines, to April 17th, of which the following are extracts:—"Palal: The lode in Taylor's engine-shaft is 3 ft. wide, composed of hard quartz and copper ore, worth 2 tons per fathom. The lode in the 8 ft. level, west of Roy's winze, is 6 in. wide, split into little strings, but still out water nearly all the time; it is composed of spar and strings of mundle; we hope soon to find it more compact and larger. The lode in the stopes No. 1, west of Roy's winze, in the back of the 8 ft. level, is 2 ft. wide, worth 2 tons per fathom, but is suspended for the present, the level being full of stuff. We shall again resume its working as soon as we can get the level cleared out. The lode in the stopes No. 2, in the same level, east of Roy's winze, is 1 foot wide, worth 1½ ton per fathom. The lode in the stopes in the back of the adit, west of Taylor's engine-shaft, is 3½ ft. wide, worth 1 ton per fathom. The lode in the winze sinking below the middle level, west of Antonio's winze, is 6 in. wide, producing stones of copper ore. We hope in about a fortnight to commence the driving of the 8 ft. level, east of Taylor's engine-shaft; also the adit level in the eastern hill. The copper ore raised in the month of March is about 60 tons. Total amount at surface about 90 tons."

The Wildberg Great Consolidated Mining Company have received the report of the mining captain, dated April 26:—"West Mine: The lode in the Blumengang sink will produce 8½ tons of silver lead ore per fathom. No. 3 middle stop will yield 5 tons per fathom. Beck's lode, driving east from the south cross-cut, will produce 3 tons per fathom. We have commenced a new rise in the back of Beck's lode east, to communicate with Langenfeld's old workings, and when communicated I anticipate it will give us sufficient air to work this part of the mine to a good advantage. This lode in the east will produce 4½ tons of silver lead ore, and 1½ ton of good copper ore per fathom. —East Mine: The winze sinking below the 20, east of Michael's shaft, will produce 3 tons per fathom. The Dornach winze, sinking below the 15 ft. level, east of Michael's shaft, will produce 3½ tons per fathom. The shallow adit from the reservoir to Carter's engine-shaft, is progressing well, and also the 10 ft. level, driving south from Carter's engine-shaft, to communicate with the shallow adit from the reservoir. The dry-house walls are completed. Our new road from the smelting-works to the mine is in good order, and the greater part of the men who were employed on the road are now engaged in raising stone for the smelting-works. Our ore returns for this month will be somewhat greater than last month. All our surface operations are still progressing well. —J. M. CHAMBERS."

The Waller Gold Mining Company have intelligence from their mines to April 14th. At the date of the advices the works were proceeding satisfactorily, fine weather had fairly set in, and those operations which had been retarded by the most protracted and severe winter experienced in Virginia for many years, had been fully resumed. During the frost which had suspended stamping and washing the new engine-shaft and other additional works had been actively prosecuted, and considerable progress made. A quantity of ore had also been raised at the upper shaft on the Waller vein, the yield being fully equal to that last reported, and sufficient to keep the stamps going for a long time to come.

The Clarendon Mining Company (of Jamaica) have received very favourable advices. At Stamford Hill, the shaft has been sunk 25 fms.; the lode is now 11 ft. wide, and operations are being conducted most vigorously to develop the mine.

The Fort Bowen Mining Company have advices to April 8, from Mr. Rams, the superintendent, from which we extract the following:—

MACHINERY.—I am now in a position at the mine to commence operations on a small scale. The Chilian mill is in perfect order, and also a small washing apparatus, which will be supplied with water from a dam, which has been constructed 8 ft. above the level of the Rio del Rey.

OPERATIONS ON THE MINE.—I have sunk a shaft 30 ft. deep, the ore in which contains silver, in some parts richer, in others poorer, but its average for gold is 1½ oz. to the ton. Another shaft, which is sunk about 18 ft., is in some parts very rich, the gold being visible to the naked eye. The average of the ore in this shaft is 5½ oz. of gold to the ton.

I hope by the next mail I shall be able to report to you the result of my crushing and washing operations, and by the end of May to send you a bar of gold, which will give me the greatest pleasure. The Germans are working very satisfactorily, to me, and have not been sick for one day. They are well satisfied with everything. The New Granada Daily Courier also states (April 7) that Mr. Ram, together with several persons in his employ, arrived in Aspinwall, Navy Bay, yesterday. They reported the health of those engaged at the mine as being good, there having been no sickness at all during the season thus far. The heavy rains have continued without interruption during the whole season, consequently the water in the river has been very high, causing some inconvenience to the people, who are obliged to use the river as an highway for the transportation of all goods used at the mine. Notwithstanding these difficulties, the work at the mine has been prosecuted successfully. Several commodious buildings have been erected, and a new and available road has been made from the mine to the river, and arrangements have been made to secure a permanent supply of water, to be used at will. Two shafts have been sunk, and a water level connects the two. A Chilian mill, for crushing operations, for separating the gold from the rock, is ready for use; and what is most encouraging of all, the run continues to improve in richness as the work progresses. Mr. Ram has some beautiful specimens of gold in quartz, and other forms, and he assures us that all his experiments go to establish the fact, that there is an abundant supply of the precious metal, both gold and silver. The brig Young Marquis, now lying in this port, has a cargo for this company, consisting of steam-engine, stamps, &c. We sincerely hope that these who have expended so much in an attempt to develop the mineral resources of this region, may be abundantly remunerated.

The Copiapo Mining Company have announced that their dividend, of 11 per share, declared on the 23d March, will be payable on and after the 25th inst.

A valuable vein of ore has been cut upon the property of the Culchote Copper Mining Company, the particulars of which appear in another column.

The Albion Gold Mining Company held a meeting of registered shareholders on Monday, at which it was agreed to dissolve the company, and divide the assets, if any. Our reporter attended, but it is to be regretted that he was not allowed admission.

Las Infantas Mining Company have convened the annual general meeting for Thursday next, but we are informed that the proceedings will be merely of a formal character, in consequence of the illness of the manager, and non-arrival of the accounts. The captain of the mine is expected in England by June next, to which time the proceedings will be adjourned.

The Jamaica Copper Mining Company have convened an extraordinary general meeting for Tuesday next to receive a report of the committee of investigation; and from which document it appears that the winding-up of the company will be recommended.

The Gold Mining Share Market continues neglected, not a single transaction having taken place yesterday. The closing quotation of Agua Fria was ½ to ¾; Anglo-Californian, ½ to ¾; Carson's Creek, ½ to ¾; Colonial Gold, ½ to ¾; Great Nugget Vein, ½ to ¾; Nouveau Monde, ½ to ¾; Waller, ½ to ¾; West Mariposa, ½ to ¾; New Granada, ½ to ¾.

In Iron and Coal Companies, there has been a little more activity, but prices remain about the same, with an inclination downward rather than otherwise. The closing prices are—Blaenavon Iron and Coal, 4 to 6; British Iron, 5 to 6; Rhymney Iron, 20 to 25; ditto, New, 5 to 6; Portland Iron, 1½ to 1¾; Duston Iron Ore, ½ to ¾.

In Miscellaneous Shares, the market has been quiet, and a small amount of business transacted. The only transactions in Land Shares yesterday were in Netherlands Land, 1½; and North British Australasian, ½. Shares also changed hands in Australian Royal Mail at 3½ to 4; Crystal Palace, 3½; General Service Steam Shipping Company, 14½ to 15½; Peninsula and Oriental Steam, 61; ditto New, 11½; Royal Mail Steam, 69½ to 70½. The closing price of Australian Agricultural was 25 to 30; Berlin Water-Works, 3½ to 4½, ex div.; Electric Telegraph, 15½ to 16½; Mexican and South American, 5 to 7; Peel River, 2½ to 3½; Scottish Australasian Investment, 1½ to 1¾; ditto New, ½ to ¾; South Australasian Land, 35 to 37; Submarine Telegraph scrip, 5 to 7; ditto Registered, ½ to ¾; Van Diemen's Land, 12½ to 13. In Joint-Stock Banks, although prices were firm, only a small amount of business was transacted yesterday, shares changing hands in London and Westminster at 45 to 48½; Oriental Bank Corporation, 30 to 35½; South Australia, 40½ to 41½; Union of Australia, 58 to 60½. In other securities of this description the closing prices were—Australasia, 79 to 81; Chartered Bank of India, 1 to 1½; Chartered Bank of India, Australia, and China, ½ to ¾; ditto, English, Scottish, and Australian Chartered, 16½ to 17½; London Chartered Bank of Australia, 20 to 21; ditto New, ½ to ¾; ditto prem.; New South Wales, 35 to 35½.

The Australasian Gold Mining Company have convened a meeting for the 17th inst., when a statement of accounts will be submitted, and a proposition made for finally winding-up the company, and dividing the balance in hand.

The National Provincial Bank of England have convened the annual general meeting of the proprietors for Thursday next.

The Spanish Gas-light Company of Havana require contracts for 8000 tons of bituminous gas coals.

A call of 6d. per share on the Newcastle-upon-Tyne Marine Insurance Company, now in course of winding-up under the Joint-Stock Act, has been made by Sir John Romilly.

The *Alceste*, just arrived from Adelaide, has 2015 bags of copper ore on board (besides 120 bags of old copper), the greater part of which is consigned to the Kapunda Mining Company.

The Derwent Iron Company have forwarded to the Paris Exhibition, from their works at Consett, near Shetley Bridge, two monster plates—the one a railway plate, measuring 73 feet in length, 85 lbs. to the yard, and weighing upwards of 2150 lbs.—the other a plate for iron shipbuilding, 22 feet 3 in. long, by 4 feet 6½ in., containing 101 superficial feet, and weighing upwards of 1544 lbs.

The number of pumping-engines reported in *Brown's Cornish Engine Reporter*, for the month of March, is 24; the average duty (being millions of pounds lifted 1 ft. high by the consumption of 1 cwt. of coals), of 15 engines, is 68.8 million lbs. The number of rotary steam engines reported is 17; the average duty of 11 engines is 17.2 million lbs. The number of stamping-engines reported is 5; the average duty of three engines is 53.1 million pounds.

SHEFFIELD, MAY 2.—Our correspondents (Messrs. E. Smith and Son) state that the transactions in mining shares during the week have been rather more numerous than of late. Brightside's have been done at 72½ ex div.; and Wheel Mary Great Consols at 11, with further buyers at the price. The Eyan Mining Company have held their annual meeting; it appears from the report that during the year just closed they have divided the sum of 3800l. amongst the shareholders, and paid all the current expenses, purchases of hillock rooms, &c., in addition, out of revenue. The statements made of the present position of the mine were highly encouraging.

HULL, MAY 3.—Our correspondents (Messrs. T. W. Plint and Co.) state that mining shares continue neglected, and there seems no probability of anything like a general enquiry for these securities. Vale of Towy are asked for, but sellers are not inclined to realise. Railway shares have been without particular animation, but on the announcement of the reduction of the Bank rate to-day a little demand sprang up, and most of the leading lines could have been sold at improved prices.

DEATH OF HENRY ENGLISH, ESQ.—We have this week the melancholy duty of recording the demise of Mr. ENGLISH, so well known to our readers from his connection with the MINING JOURNAL, and his energetic interference in all matters affecting the mining interest. With a generous heart, and an active mind, he was always prominent in any endeavour to promote beneficial objects, and his memory will be long cherished by many to whom an intimate knowledge of his kind disposition had endeared him. At his residence, Mount Alton, near Dublin, Mr. ENGLISH had been for a considerable period a painful sufferer from declining health, so much so, indeed, as to be incapacitated from attention to business. He died at Tillington, on Saturday, the 28th of April, and his remains will be interred this day at Highgate Cemetery.

LEAD ORES.

Mines.	Tons.	Price per ton.	Purchasers.
Foxdale	100	£15 1 6	J. P. Eytton.
Newtonards Conlig	21	14 3 6	ditto
Sold on the 28th April.			
Wheel Mary Ann	76	£25 10 0	Sims, Williams, & Co.
ditto	51	7 2 0	ditto
North Wheel Trellawny	21	15 15 6	R. Somers.
ditto	9	4 2 6	T. Michel and Son.
Sold on the 1st May.			
Eggar Mwyn	35	£13 12 6	Walker, Parker, & Co.
Sold on the 3d May.			
Caylan	35	£12 13 6	Walker, Parker, & Co.
Rhoswydol	10	14 0 6	J. P. Eytton.

BLACK TIN.

Mines.	Tons e. q. lb.	Price per ton.	Amount.	Purchasers.
Wheel Guskus	2 10 0 14	£62 3 0	£156 0 3	—
ditto	5 8 1 30	63 0 0	341 11 0	—
Sold on the 19th April.				
Podnandras United	2 8 0 0	£60 0 0	£168 0 0	Biscoe.
Ballicadden United	0 18 1 19	61 10 0	50 9 6	Boltho.
ditto	0 1 3 1	25 0 0	2 4 0	ditto
ditto	0 2 0 25	51 0 0	5 13 0	ditto
ditto	0 1 0 19	12 10 0	0 11 6	ditto
Sold on the 26th April.				
Wheel Trevelyan	3 12 3 4	£62 15 0	£ —	Boltho.
ditto	0 15 0 3	52 0 0	£ —	ditto
Sold on the 28th April.				
Millpool	8 15 3 19	£61 0 0	£331 11 0	—
Sold on the 1st May.				
Great Polgoth	10 9 2 16	£ —	£ —	—
Sold on the Mine.				
Wheel Enys	1 7 3 26	£64 15 0	£ 90 11 10	—
ditto	2 3 2 16	63 5 0	144 6 10	—
ditto	0 10 2 10	55 0 0	29 2 4	—
ditto	0 9 3 16	33 0 0	16 6 5	—
ditto	1 8 3 6	30 10 0	43 18 3	—
Hemerdon Consols	2 0 0 0	63 2 6	126 5 0	Trethellan.
ditto	2 0 0 0	63 2 6	126 5 0	Calenick.
Rix Hill	6 10 0 0	55 10 0	360 15 0	Biscoe Co.

COPPER ORES.

Sampled April 18, and sold at Tyack's Hotel, Camborne, May 3.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Wheal Basset	90	£6 0 0	South Wheal Frances...	61	£7 15 0
ditto	76	6 6 0	ditto	57	14 2 0
ditto	74	5 4 0	ditto	55	11 11 0
ditto	70	4 2 0	ditto	40	11 10 0
ditto	61	10 6 0	ditto	19	9 0 0
ditto	51	8 0 0	North Wheal Crofty	73	5 16 0
ditto	48	6 14 0	ditto	73	7 13 0
ditto	43	10 6 0	ditto	70	9 5 0
ditto	39	19 1 6	ditto	38	2 37 0
ditto	34	39 12 6	ditto	20	1 10 0
ditto	25	41 0 0	South Tolgus	47	10 17 0
North Roakey	63	5 14 0	ditto	43	5 5 0
ditto	62	11 18 0	ditto	41	15 13 0
ditto	57	11 18 0	ditto	40	11 13 0
ditto	57	6 18 0	ditto	31	16 18 0
ditto	50	6 18 0	Pemb. & F. Crinnis.	60	5 12 0
ditto	47	8 13 0	ditto	46	3 16 0
Tineroft	63	4 19 0	ditto	40	11 13 0
ditto	54	2 10 0	ditto	38	1 16 0
ditto	52	2 8 0	Wheal Seton	79	4 13 0
ditto	51	2 0 0	ditto	23	1 4 0
ditto	43	4 11 0	Pendarves	24	9 7 0
ditto	41	2 0 0	ditto	24	14 7 12 0
ditto	1	57 17 0	West Stray Park	6	1 18 0
South Wheal Frances...	73	7 12 0	ditto	6	1 18 0

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

WATER POWER.—Sir: In answer to "An Inquirer," in your last Journal, I would state that a stream of water, 2½ feet broad and 2½ inches deep, running at the rate of 450 feet per minute, will supply 234 cubic feet per minute, and this, with a fall of 40 feet, will give a power of 15 horses "commercial" (nearly). If "An Inquirer" should run the skirts of his wheel 3 feet per second, the buckets would not be quite half full; should he run the periphery 6 feet per second, the buckets would not be quite a quarter filled; hence "An Inquirer" will perceive that his wheel is sufficiently capacious in the buckets for a stream of water twice, or even three times, the volume, as he might, under certain circumstances, run the circumference of the wheel as high as even 8 feet per second with advantage; but it would not be well, under an arrangement, to fill the buckets more than two-thirds full. Judging the object of the enquiry to be a practical one, I trust the foregoing will meet his wishes. —*Reply: Ingleborough, May 2.*

PORTLAND CEMENT.—A new arrangement of partnership has been effected in the commercial house of Messrs. Aspin and Ord, of Gateshead, and Abingdon-street, Westminster; and we expect shortly to insert in our advertising columns some information on this valuable commodity, advantageous to builders, architects, and others interested.

GOLD IN ENGLAND.—Sir: Will your correspondents, Messrs. Mitchell and Calvert, inform us how it is that some assayers detect a large amount of gold in every substance sent to them, whilst other assayers of eminence have not been able to detect a trace of gold in the same samples? The public are getting tired of hearing of so much gold in samples, assays, patent amalgamators, &c., without satisfactory results. Messrs. Mitchell and Calvert, I fear, deal more with shadows than with substances. The columns of your valuable Journal should be occupied by more substantial, practical subjects, than by the fancies of gentlemen who have not reduced any of their theories about gold to practice. —*P. R.: Newcastle.*

"Practical" (Brighton).—There are no funds in hand, the secretary is dead, nearly all the directors are either bankrupt or insolvent, two are deceased, and the committee of investigation have made no report. One director remains out of the wreck: it is questionable whether, if sued, he would be able to pay.

M. N. W.—When a tribute is given, if those having rich ores throw them into a poorer pit, thereby allowing the tribute to obtain more than his rightful dues, the parties so transgressing are "kitters," and the offence is denominated "kitting." Unless known as a shareholder, it would be a question whether the clerks would allow accounts and reports to be inspected. There are other minerals besides gold and silver in South America.

BRITISH AUSTRALIAN GOLD COMPANY.—Sir: At the meeting of shareholders, held on Thursday last, Mr. Guedalla succeeded in carrying a resolution, that Mr. Michel, or some other competent party, should be sent out to supersede Mr. Dyer. Although such a course may be advisable, it is to be hoped that the directors will pause before they part with the large sum required by Mr. Michel to test his machine before that taken out by Mr. Dyer is proved, which certainly has not been done up to the present time. The shareholders were unanimous in their wish to go on, and the balance in hand, with judicious management, may yet redeem the property. —*A SHAREHOLDER: Tokenhouse-yard, May 2.*

C. L. (Cornwall).—In reply to your question, we should most decidedly say that the professor you mention is the only inhabitant of the North with an European reputation.

WHEAL HENDER (Crown).—Sir: There appears to us, in the locality, that there must be some mistake in the quotation of Wheal Hender shares in your Journal; and if Mr. Thomas, who advertises in your columns for 50 shares, at 9s. each, is really a person who wishes to invest money in mining, he had better consult some practical mine agent, before making purchases at that rate. If he is only a speculator, it is time the "rizzing of the market" should be exposed; in either case, your insertion of this letter cannot possibly do any harm. It is by no means my intention to depreciate the value of this mine, as a speculation; my only aim is to see mining carried out legitimately. —*A READER: Crown, April 30.*

"Legion" should have attached his name to his communication respecting the specimens of Australian gold and auriferous quartz at Wryd's Globe, in Leicester-square. "Legion" is quite right in our readers being able to watch the results of the controversy, and judging for themselves.

SOUTH WHARF ROBERT.—"A Lover of Justice" (Hornbridge) considers the parties interested in this adventure should have the settlement and reported on by some independent agent, otherwise the statements in last week's Journal, respecting kindly ladies being out, might be considered premature, and prove a bane to legitimate mining.

SOUTH DEVON MINING COMPANY, AND "TAVISTOCK DISTRICT."—Sir: Whatever may be Mr. Ennor's opinion, or that of the public generally, of the "Tavistock men," I think it but fair that they should be acquitted of the infamous attempt to delude the public by the recent false telegraphic report. It is represented that the message bore the signature of Mr. Thos. Nicholls, of Tavistock, but which he scornfully repudiates; and I believe truly; for instructions have been given to investigate the matter, and, if possible, bring to light the guilty parties. Therefore, if the "Tavistock men" can acquit themselves of having any share in that disreputable proceeding, it will be taking a responsibility off their shoulders, and will prove satisfactory if the sole convector be really found in—*RUFUS SPECTACLES.*

Mr. Hopkins is at present in the mining districts of Alston, Cumberland, and will be there a few weeks; on his return to town he will, doubtless, reply to the observations of some of our correspondents.

CRUSHING MACHINES.—Sir: Will some one of your practical correspondents undertake to inspect the various machines, and to report which one is best capable of crushing ores or metals to an impalpable powder, and how many tons per day can be so reduced? Also, whether the machine would crush so fine, that the powder could pass through an 80 lineal inch sieve? I am told that this can be easily done. Likewise, if there is at present any machine capable of separating and classifying metals? —*An Old Subscriber: May 3.*

A. P. (Pimlico).—The amount of the consolidated stock of the Company of Copper Miners is 300,000l.; there are 12,000 preference shares, of 25s. each.

BRITISH AUSTRALIAN GOLD.—In our condensed report of the meeting of the above company, in the last Journal, an error occurred in Mr. G. M. Stephen's speech. He spoke of the honour of being elected an "Honorary Member of the Natural History Society of Devonshire," not of the "Geological Society of London," in consequence of his having brought over the first specimens of crystallised gold and gems from Australia.

A Miner" (East Harptree).—Calamine is a carbonate of zinc. Its colour is commonly greyish or yellowish, but sometimes it is found with various shades of green and brown. It is translucent or opaque, and yields easily to the knife. It dissolves with effervescence in nitric or muriatic acid, but does not, like the silicate of zinc, form a jelly with them. In England, it is found in various localities—very frequently at Mendip, in Somersetshire, and Matlock, in Derbyshire. It occurs likewise in the United States, Siberia, Hungary, and several parts of Germany. Calcareous spar, and carbonate of lime, are synonymous terms, and occurs in veins of almost every kind of rock, from the oldest to the newest alluvial stratum, and accompanies or constitutes the gangue of a great variety of minerals. The best specimens are obtained from Andreasberg, in the Harz, Alton Moor, in Cumberland, and from Derbyshire. The Iceland variety, which is considered to be the purest form of carbonate of lime, is transparent, and doubly refractive in a high degree; and hence its familiar appellation of Iceland, or doubly refracting, spar. Its most prevailing colour is white, and its composition is carbonate acid and lime.

COLLIERY WORKING.—"S. F. C. A." (Rochdale), should procure Matthias Dunn's "Winning and Working of Collieries" (12s. 6d.), and Greenwell's "Practical Treatise on Mine Engineering" (2s.).

Sir: An individual has sunk a pit upon the deep of a farm I possess, and by so doing has laid dry an excellent spring of water upon my farm, and which supplied that most indispensable article to my farmhouse. I shall, therefore, feel much obliged if some of your talented correspondents will favour me with their opinion as to my best mode of proceeding to obtain redress for the injury I have sustained; for, entirely no man has a right, in the enjoying his own property, to inflict injury on another party. —*AGRICOLA: April 28.*

T. B. C. (Leadenhall-street).—The West Mariposa have not yet held any public meeting. Some two years since it was stated they had leased a claim on Gold Hill. We are not aware that they have ever sent any machinery to the scene of operations.

POLISH COPPER MINING COMPANY.—At the meeting held last week a call of 1s. per share was made, with the understanding that it should be returnable in the event of not being fully responded to. As out of about 42,000 shares only 18,000 are registered, there is not the slightest chance of the call being paid, and the only alternative left will be to wind-up the company, and start it on a different system.

"One Interested" (Wood-street).—We have on many occasions applied at the offices of the Hydraulic Steam Navigation Company, Adam's-court, Old Broad-street, without being able to obtain any definite information. We now find the offices deserted by the parties connected with the company, and to be occupied by others. The plan proposed by the promoters was the injection of water at the bows, and its ejection at the stern, by steam power, but a full description of the principle we have not been able to obtain. Our respected correspondents, Messrs. Gwynne, of Exeter-wharf, Strand, have suggested a somewhat similar mode of propulsion by their balanced centrifugal pump.

FORT BOWEN GOLD AND SILVER MINES.—We have received a long letter from Capt. Jas. Eddy on the affairs of this company, for which we cannot find room at present.

GREAT FOLGOSGOW MINES.—An additional sale of 5 tons of tin per month will, it is expected, cover all cost of the mine, which it is considered they will obtain by July next, on opening the 116 ft. level. The anticipations held out when the call was made, in August last, have been more than realised.

FACTS & THEORY.—Sir: Your correspondent, "G. D." may do very well in his laboratory, but when he attempts to enlighten your readers on geological science, he certainly does not succeed; and, to prove the correctness of my assertion, I will quote a few lines from his letter, which appeared in last week's Journal:—"I would beg to inform 'A. K.'," he says, "as to the true carbon (?) beds of Wheal Friendship. They belong to the carbonaceous series of Devonshire, the Devonian coal or anthracite beds, and to the formation known as the Devonian, or old red sandstone, and are not connected with the true mountain or carboniferous limestone, the nearest point at which this is found being Plymouth, and which is above them in geological position." It was clearly proved, several years since, that the carboniferous beds, of which "G. D." speaks, override the old red sandstone series, and are the real representatives of the carboniferous system, and, therefore, do not belong to the Devonian, or middle palaeozoic period. "G. D." commits another error in saying that the "true mountain" limestone is to be found at Plymouth. That formation is neither discoverable at Plymouth, nor in any spot for many miles distant of it. All the limestone beds which occur there, as well as those which are developed in different parts of the south of Devon, belong to the old red sandstone group, and instead of being found above the culm measures, as "G. D." alleges, occur below them. How essential to the progress of science, that writers should have a correct knowledge of the subject on which they are writing, and give an accurate description of geological and other phenomena. If this were more adhered to, and less of mere theory promulgated, more benefit would accrue to enquirers after truth. —*Z.: Tavistock, May 2.*

We have particularly to request that subscribers and others, in paying accounts, will send cheques or post-office orders, as postage-stamps cannot be received.

PHOSPHATE OF LIME.—Sir: I have been informed that a mineral phosphate has been discovered, containing about 90 per cent. of phosphate of lime. Can any of your readers inform me whether this is correct; and, if so, from what part of the world the article is procured? —*ALMA: London, April 30.*

"A Nomade" (Sussex).—Some of the companies have been honestly conducted, and although in many instances the directors have been highly culpable, the public in most cases are greatly to blame, from their own cupidity and want of caution.

"H. F." (Aldersgate-street).—Boron is an artificial product, obtained by the action of potassium on boric acid, which acid is found in nature both separate and in union with soda. Boron is a dark olive coloured solid, possessing neither taste nor odour, about twice the weight of water; not fusible when intensely heated in a close vessel, but when exposed at the temperature of 600° to the atmosphere, taking fire, burning, and being converted into a boracic acid.

"Inquirer" (Liverpool).—The total production of coal in Russia is 16,000 tons per annum; anthracite, 47,000 tons. The Russians state the coal formation extends from the White Sea to Kalanga and Tonia. On the west side of the Ural indications of coal have been discovered, near the works of Kamensk; likewise near the villages of Aifone and Berezoof. In Transcaucasia, at Tokeni Takhale, there is a seam about 50 feet in thickness, as well as at Tabassaran, 40 versts from Derend. Russian coal is used at the smelting establishment of Longane, and salt works of Slaviansk. The anthracite of Grouschvsk is used for domestic purposes in the city of Novo Teherkassed. On the 16th of September a copious and detailed article was published in the *Mining Journal*, on the mineral produce of Russia.

RANDON BARTIES COMPANY.—The letter of "One Interested" can only appear with the writer's name attached.

WELSH POTOMI MINES.—The disputes which have arisen between the managing director and the agents are much to be regretted, and, according to the accounts received, although the mines are good, yet it appears there has existed a great division between all parties concerned, including the managing director, agents, and the workpeople. Scenes have occurred which, to say the least, have reflected no credit on any of the persons who were parties in them. The scriptural version says, "A house divided against itself cannot stand." There may be, probably, great causes of dissatisfaction; these, however, could be remedied at a general meeting of the shareholders. The agents in every mine should have a consulting voice, although there can be no question that the direction of the mine should be vested in the general manager. When a statement is made *ex parte*, it should be always couched in temperate language; and if there be reckless expenditure, the shareholders, at their meetings, have always the power of controlling it. The quantity of lead ore promised to be raised must be considered as an estimate only. The employment of others than miners as agents, or in any capacity where mining knowledge is required, deserves severe reprehension. It has lately been complained of that, in several mines in the Principality, cap-peniers, bricklayers, and masons, have been employed as mining agents, without having the least capabilities for the task they have undertaken. The sooner such a system is abolished the better will it be for both directors, shareholders, legitimate agents, and mining enterprise.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MAY 5, 1855.

The expression of public indignation against the system of routine which prevails in all our administrative departments, and which has proved so ruinous to the State, does not appear to have as yet reached the Board of Ordnance with that vehemence which we believe it merits. Whether that exemption is to be attributable to the feeling that its official head, Lord RAGLAN, has been removed from his proper sphere to command our army in the East, or from the mysterious secrecy with which its operations are concealed from public view, this is certain, that the department has hitherto succeeded in escaping the scrutiny of parliamentary enquiry. The system of promotion at the Horse Guards, and of nepotism at head quarters, the deplorable inefficiency of the medical board, and our disgracefully defective commissariat and transport arrangements, are the theme of every tongue, and are admitted to be the scandal of the country, and the reproach of the age. We have been engaged in the most appalling siege operations, and we have fitted out the most formidable naval armaments; and, as each and all have hitherto proved signal failures, we have a right to enquire into the character and capacity of the officials to whose management they were confided, and into their qualifications to deserve, if not to command success.

To the Board of Ordnance the nation supplies enormous public funds, which it places freely at their disposal, and it expects in return every arrangement of the most perfect description with respect to naval, siege, and military artillery, the most costly as well as the most formidable implements of war. In the absence of the Master-General of the Ordnance in the Crimea, his onerous duties at home have been transferred to a superannuated deputy, Sir HENRY DALRYMPLE ROSS, who, after 50 years' service, being unfit for the field, is entrusted with arrangements and powers too varied and too extensive for the most vigorous young mind, or even for a combination of many such. With him is associated a county of Limerick squire, Mr. MONSELL, originally educated for the bar, who, to please a section of the Irish party, was promoted to his present office, in order to push aside Colonel DUNN, a military man, well acquainted with the service in all its details. The most rigid enquiry into the evils of our administrative system cannot possibly expose a more glaring instance of the abuse of parliamentary patronage, or a more contemptuous disregard of qualities befitting for office, than the selection of the present clerk of the Ordnance.

Under the mismanagement of such officials the country now endures only the evils which it had a right to expect, as the natural results of unfitness and incapacity. Great national struggles generally give birth to great national genius; and intellectual enterprise invariably rises to seize every opportunity that presents for its display. Numerous proposals have accordingly been made of plans for improvements in our powers of offensive war, from the Earl of DUNDONALD, the oldest and most distinguished of our naval chiefs, down to the humble operative mechanic. While our blood and treasure are profusely squandered in abortive efforts, it has been officially announced by the Board of Ordnance to the scientific and practical intelligence of the country, that no proposition nor plan would be entertained by the authorities from which the projector expected any personal or pecuniary emolument, even if attended with success. This, too, from the Government of a nation involved in such appalling difficulties, with such vast funds placed by Parliament at their disposal, and in a country which boasts of the protection it affords to intellect by its patent and copyright laws. We cannot trust ourselves in denouncing this insolent attempt to stifle the spirit of enquiry and improvement, which a wise and beneficent administration would struggle to create and encourage. With such an expressed determination on the part of our rulers, it is surprising that disasters should attend our arms, and that our means of assailing and subduing the gigantic power of Russia should have proved unavailing. In the present age of progress, when science is daily achieving such marvels, is it to be endured by the British people, that the administrative departments of the State are alone to be stationary, and that projects for military and naval aggression which might, perhaps, emulate in genius and effect the designs of a WATT and a STEPHENSON, are to be rejected and contemptuously despised?

Amongst the many who tendered to the authorities of their country the efforts of their intelligence, their enquiries, and their experience, there was no man who had higher claims than Major PARLEY, of the East India Company's Service. That distinguished officer proposed to Mr. MONSELL, Secretary to the Ordnance, a cheap system of building strong walls by rammed earth, which could be formed by the mere labour of the soldiery, and which might be made fire and bombproof, and very durable. For kitchens, hospitals, &c., they would prove invaluable, as being secure against fire as well as changes of the atmosphere, saving the expense of bricks, lime, and masons, and teaching the militia and other soldiers an admirable and simple mode of building walls. As the proposal did not come from some of the favourites of routine, we presume that it was disregarded and cast aside. Major PARLEY, in papers published by him no less than 33 years ago in India, in the *Military Repository*, recorded his sentiments in condemnation of cannon, several hundreds of which were afterwards cast at the expense of the nation, and are now lying wholly useless at Woolwich. In the same book will be found Major PARLEY's invention of the ring for securing the bayonet on the musket, invented by him for the use of the East India Company 35 years ago, and which is now adopted from the French, but without the two side studs on the barrel, which are important with our new muskets. What must the British public think of the knowledge and intelligence of those who have for the last 35 years administered, and even of those who at present presume to administer, the weighty department of the Ordnance, when they now even imperfectly adopt, as if from our allies, an improvement suggested in the arms used by the troops of the East India Company at a period almost as remote as the close of the last war? It is idle to multiply instances; the time has at length arrived when the country is preparing to demand an enquiry into the glaring defects of our administrative system, and we trust that competent parties will be judiciously selected for the investigation, irrespective of parlia-

mentary influence, and not likely to be affected by the temptations of place, or the fascination of party.

The great movement in the City is a strong indication of the intensity of feeling which pervades the country, and the proceedings of this day at the London Tavern are looked forward to with anxiety by every city and town in the kingdom. Amongst the names to the requisition for the meeting, we recognise those of some of our most eminent firms; as men of business, they have expressed their determination to have the affairs of the nation managed in a business-like manner; and although official clamour in Parliament may attempt to put down Mr. LAYARD, there is but little apprehension that it will have much effect upon the great mercantile body of the City of London.

The success of the Borehaven Copper Mines, and also of the copper mines of the Mining Companies of Ireland and of Wicklow, furnishes the most encouraging inducement to prosecute that branch of national industry in the sister island. The position of another company, the Clew Bay Copper and Sulphur Mines, situated on Clew Bay, in the county of Mayo, also presents highly flattering prospects. That company was originally formed under most favourable reports of the value and richness of the mineral property comprised in the extensive tract of land, of 8000 acres, to which it had procured an excellent title. Their proceedings were, however, suddenly suspended by the claim of the head landlord, Sir RICHARD ANNISLEY O'DONNELL, who asserted that the right to the royalties had not passed to the lessee, and that the company holding under him had, consequently, no title to the mines, nor right to work them.

This important question became, accordingly, the subject of litigation in the courts of law in Ireland; and while it was apparently conceded that the original lease granted in 1776 had passed the royalties, it was insisted, on the part of Sir RICHARD A. O'DONNELL, that the language of the grant had been varied in the subsequent renewals, and that the immediate landlord of the company having purchased under those renewals, was bound by them. The company, however, contended that the language of the renewals was in itself sufficient to entitle them to the royalties; and although the Court of Common Pleas in that country differed on the subject, the Court of Exchequer arrived at that conclusion in favour of the company. All doubt, however, upon the subject is now effectually removed by the Lord Chancellor of Ireland having, by a final decree, directed Sir RICHARD A. O'DONNELL to amend the last renewal, by making it conformable to the terms of the original lease, so that all question as to the words of the grant, and as to the undoubted right to the royalties, may be now considered as for ever set at rest.

Pending the prosecution of these suits, the immediate landlord of the company consented to a suspension of their operations, which the company are now not only in a position, but under an obligation to resume. Their title being established, their mineral property has, of course, acquired a considerable higher value, and arrangements are in progress for their active and effectual development. The surveys of highly competent and wholly disinterested parties establish the excellence of the mines, while assays from the most eminent assayers attest the richness of the ore in copper. The property is held for a term, which may be considered a perpetuity; and the company was originally formed on the Cost-book Principle, divided into 12,800 shares. By the last printed bi-monthly report, we perceive that it has been resolved immediately to make a call of 2s. per share upon all the shares of the second issue, the call to be payable on or before the 10th of May, and that the forfeited shares should be sold at a discount of 4s. per share. Under the propitious circumstances we have detailed, there can scarcely exist a doubt but that the call will be freely paid up, and that the cordial co-operation and influential assistance of all the shareholders will be gladly accorded, in order to render the valuable mineral property comprised in this now established lease a highly remunerative source of investment.

The incongruous nature of our legislative system has not been, in any instance, more apparent than in the present struggle on the part of the mining proprietary in Ireland to relieve mines in that country from being rated to the support of the poor, while the agricultural interest and Poor Law Guardians of Cornwall are striving to impose poor's rates on the mineral property of Great Britain. We always maintained that it was inequitable and unjust to subject mines in Ireland to any system of taxation from which property of a similar description was exempt in England, and we, therefore, freely tendered our zealous support to the bill recently introduced into the House of Commons by Mr. J. D. FITZGERALD, the member for the borough of Ennis, intended to equalise the law in that respect in both countries. That gentleman has, however, since his bill was printed, tasted the sweets of office, by becoming Solicitor-General for the sister island, and accordingly, while he is himself silent, the measure has, we presume, been thrust under the table. Perhaps to the fact of Ireland having been unjustly subjected to Poor Law taxation in respect of her mines, may be traced the present design of extending the injustice to Great Britain, and rendering that species of property, which has been free since the passing of the first Poor Law Act in the reign of ELIZABETH, for the future liable to be rated to the support of the poor.

We published in our last Journal a most valuable communication from our correspondent, Mr. WILLIAM TREGAT, condemnatory of the proposed measure, and our present number contains, from an eminent authority, an admirable exposition of the existing law, as it relates to coal mines. A reference to that communication will satisfactorily explain the principle of law on which our Courts of Judicature have acted during a series of nearly three centuries, in holding coal mines alone liable to be rated to the poor, a state of the law established by a succession of decisions which it is now proposed summarily to overthrow. The fact that Ireland had been unjustly taxed, an injustice from which she sought relief, furnishes but a flimsy pretext for altering the state of the law as it had existed in this country for centuries, and it may be fairly inferred that our ancestors, when they determined on making the land chargeable with the support of the poor, had their own wise reasons for exempting metallic mines from the same obligation. We refer to the unanswerable reasoning of Mr. TREGAT, who anticipates alarming consequences to the Cornish industry from a sudden alteration of the Poor Law; and while we generally deprecate changes in long-established practice, we consider the present period peculiarly ill-timed for making the attempt. Mining enterprise is not at this moment in such a state of extravagant prosperity that it can well bear augmented burdens, and the effort, if successful, cannot fail to amount to a clear infringement of existing, and even of vested, interests. Mining leases have been taken at heavy royalties, expensive machinery purchased, and vast capital expended in the Cornish and other metallic mines of Great Britain, on the faith of their continuing, as they have ever been, exempt from Poor Law taxation. Many persons are complaining that mines, even with the benefit of that exemption, are not the most advantageous sources of investment. Do our wise legislators hope to render them more so by increasing taxation upon them?

If our ancestors in the reign of ELIZABETH, and the several succeeding generations, hoped by relieving metallic mines from Poor Law taxation to encourage their development, and lead to a more extensive employment of the industrial population, what state of circumstances has occurred to justify Parliament in declaring that such policy ought to be for the future reversed? The moment selected is also unpropitious—when the claims for the purposes of war, and its varied and vast operations upon our copper and lead mines, are increasing, and when the national burdens, which our mineral resources bear in common with all others, are in daily progress of augmentation. Every addition to local taxation must tend more or less to paralyse the energies and exertions of those on whom it falls; and in the name of the mining community we protest against that interest being specially selected at this period of general depression for fresh burdens.

The agricultural interest has no just ground for envying the exemption which mining industry has enjoyed; the proprietor has purchased his estate, and the farmer has become tenant to his land, with full notice that both are liable to contribute to the support of the poor. The mining proprietor, on the contrary, has entered into his contract with the conviction that he was not to be so liable, and the landed proprietor from whom he holds his mine has probably, in calculating his royalty, estimated the value of such exemption. Any alteration, therefore, of the existing law, at the instance and for the benefit of the landed interest, is in effect a direct infringement upon, and an attempt to violate, *pro tanto*, present contracts, deliberately formed on the solemn guarantee of public faith. That the system as it at present stands has worked favourably in raising the value of land immediately adjoining mines in Cornwall is clearly established by the instances brought forward by Mr. TREGAT; while it is equally unquestionable that in the districts of Cornwall in which mineral industry is most active the poor's rates have diminished with the increase of that activity. We have thus a practical refutation of any argument

which relies upon the policy or necessity of altering the law, with the view of relieving the land; and we have a strong argument against creating a law, which may tend to impede the still further advance of mining enterprise. In whatever aspect the question may be fairly and impartially viewed, there seems little reason for hesitation in expressing a firm conviction that it would be far wiser policy to assimilate the law of Ireland to that of England, than to adopt an evil example from the bad legislation which has crushed the sister island, by creating and casting a new and grievous burthen on the mining industry of Great Britain.

Decisions, establishing the liability of mining proprietors to provide for the safety of the men whom they employ, crowd upon us, and we have now to direct public attention to a solemn judgment of the House of Lords, the highest authority known in our law, on this important subject. We allude to the recent case of *MARSHALL v. STEWART*, a Scotch appeal, decided during the present parliamentary sittings, and we cannot avoid expressing our conviction that a few such cases will have a far more salutary effect in preventing fatal accidents than any system of inspection that can be devised. It was an appeal from a decision of the Court of Session in Scotland, in an action in which the widow and children of *JAMES MARSHALL*, a coal miner or collier, deceased, were the plaintiffs, brought by them against the defendant, *MR. STEWART*, who carried on business as an iron manufacturer and proprietor of the Omoa and Cleveland Iron and Coal-Works. The plaintiffs sued under Lord CAMPBELL's Act, as the personal representatives of *MARSHALL*, who had been killed by injuries arising from the shaft of the pit being in an unsafe state, as was alleged, in consequence of the negligence of the defendant, the employer; and it was conceded throughout the argument that the law on the subject was the same in Scotland as in England.

MARSHALL was engaged at piecework in working a pit called the Bell-side Pit, and on the morning of the 11th Jan. 1849, while ascending the shaft or shaft in the cage provided for the use of the miners, was struck on the head by a lump of coal, ironstone, or some other hard substance, falling on him from above, in consequence of which he fell from the cage to the bottom of the pit, and died shortly afterwards from the injuries he received. It further appeared that the cage in question had not been provided with a cover, so as to protect those ascending and descending from what should fall from above, and that the under part of the pit consisted of solid rock, while the upper was composed of loose stones and metals. The upper part had been lined with wood, intended to prevent the loose stuff from falling; but previous to the occurrence the woodwork had rotted, and was in an unsafe state, and the stone which fell upon the head of *MARSHALL* had come through some part of the rotten timber lining. The plaintiffs, therefore, alleged that the death had been caused by the default, culpable negligence, or unskillfulness of the defendant, or of his servants, in not maintaining the woodwork of the shaft in a proper, safe, and sufficient state, or in failing to provide a proper covering for the cage. The defendant, in his plea, alleged that the pit in question was, at the time of the occurrence, under the charge and management of persons of sufficient skill and experience, and fully competent for their business; that the pit was in all respects safe for working in it; and that on the occasion of *MARSHALL* falling down the pit, he was in the act of leaving his work when he had no right to do so; that his death was attributable to his own carelessness, or was the result of inevitable accident.

The Court sent the following issue to be tried by the jury:—"Whether the death of the said *JAMES MARSHALL*, while working in a coal pit belonging to, and in the occupation of the defendant, was occasioned by injuries arising from the shaft of the pit being in an unsafe state from causes for which the defendant, as the employer of the said *JAMES MARSHALL*, was responsible." On the trial before Lord Justice Clerk HOPKINS, the judge gave the jury the following direction:—"1. That if they were satisfied that on the morning in question the men left the mine without working from no apprehension of danger, but of their own accord, for a purpose of their own, against their employer's interest, and in a body, in order to make some complaint tell more effectually with the manager or the defendant, and not in the ordinary course of their occupation, then that they should find for the defendant, although the accident might have been caused by a substance falling through insufficient planking.—2. That if the jury were satisfied that the death was occasioned by insufficient planking and care, that they should assess such damages as the defendant would be responsible for, if not relieved on the first ground; and be reserved the right of entering the verdict according to the opinion of the full Court. The jury found as follows:—"On the first point they find for the defendant, and that the men had no proper cause for leaving their work. On the second point they find that the pit was not in a safe and sufficient state, and that the death arose from injuries thereby caused, and they assess the damages at 150*l*."

After argument before the full Court, it was held by a majority of three judges to one that upon these findings the defendant was not responsible. The ground on which the Court went, was that the jury had expressly found that the men had not proper cause for leaving their work, that *MARSHALL* was not employed at the time in doing his master's work, and had not, therefore, the protection which the law afforded to a person employed for the owner. The responsibility of the owner could not be carried further than while the men were doing his work, working for him, and by his orders, and that *MARSHALL*, when not working for the defendant, was in effect to be treated as a stranger. From the decision the plaintiffs appealed, and it was now insisted that the defendant was not relieved from liability, even although at the time the deceased was killed he was leaving the mine for a purpose of his own, in order to make a complaint, and not in the ordinary course of his occupation. The deceased was coming up in the exercise of a right which every workman had, to make a complaint to his employer; he was violating no duty, but was in the prosecution of a lawful purpose, and, therefore, entitled to that protection which the law gives to the servant under his contract of service, more especially when that service is one of hazard and danger.

The Lord Chancellor, in moving the judgment of the House of Lords, expressed his approbation of the course which the learned judge had adopted at the trial, in having the damages contingently assessed, subject to the final adjudication on the law, because such a course tended to save expense and delay. Having adopted that course, it was reserved for the Court above, and now for their lordships' House to say, what ought to be the result of the findings of the jury. The facts of the case appear to be that there was a dispute amongst the workmen on several points; amongst others they complained that the lining was not safe, and unhappily it turned out that they were correct. There appeared to have also been complaints that there was not proper provision for supplying air, and it was said that they went down with a determination not to work. On this point there was some controversy, but it was immaterial; for, putting the case in the strongest possible way—viz., that they went down determined not to work, that is to make their remonstrances, perhaps under the impression that they would not have been attended to. When, however, they went down they went down safely; they had their meeting, and their grievances might have been well or ill-founded; but resolving not to work, they made their signals, and were drawn up, and the accident happened on their being drawn up. A master, by the law of England, as well as of Scotland, is liable for accidents occasioned by his neglect towards those whom he employs, although it is quite true that he is only responsible while the servant continues in his employment. A great latitude must, however, be given in construing what is being in his employment, for it would be a monstrous proposition indeed, if, having sent a workman down into a mine to work, and he there not choosing, and even ceasing, to be employed any longer, requires to be taken up again, that the taking him up should be held not to require the same caution which was necessary when he was let down. That was not the law: if when taken up he was afterwards dismissed, or if while remaining in the employment, and intending to come down into the mine again, he in the interval does something not in the course of his employment, the master is not responsible for it. Whatever he does in the course of his employment, according to the fair interpretation of the words *cum, morando et redeundo*, for all that the master is responsible, and it does not make the slightest difference that the workmen had, according to the finding of the jury, no lawful excuse for not going on, no proper cause for leaving their work—that is to say, that there did not, in the opinion of the jury, exist that danger in respect of the air, or that danger in respect of the lining, which ought to have induced the men to say that they would not work. It mattered not whether the men were right or wrong in saying that they would not work—that is, that they would not earn any more; even if wrong, it was unquestionably the duty of the master, *qua* master, in his capacity of master, to take them up safely, just the same as to have brought them down safely. For that purpose the obligation of the master continued in that state after the termination of the contract, after they had in truth

ceased to work in his employment, and while they were merely causing themselves to be removed from it.

Lord BROUGHAM, in delivering his judgment, fully concurred with the Lord Chancellor. It was perfectly clear that it made no difference whatever in this case, whether there was that want of proper cause for going up from the mine which the jury had found by their first issue. The master who let them down was bound to bring them up, even if they had come up for their own business, and not for his, and he is answerable for the state of his tackle by which the lamentable accident was occasioned. Judgment of the Court below reversed, and the verdict for 150*l*. damages, with costs, directed to be entered for the plaintiffs upon the second finding, and not upon the first.

A bill brought into the House of Lords by the Lord-Chancellor, which is to be entitled "An Act to Amend and Extend the Jurisdiction of the Stannary Court," was ordered by the House, on the 1st of May, to be printed. We have received an early copy of it, and find that it contains 31 clauses, and is most extensive in its enactments. It confers summary powers of suing for contribution, by its process, shareholders who are resident beyond the jurisdiction of the Court in any part of England and Wales, and gives the superior Courts of Common Law at Westminster jurisdiction to enforce the orders and executions of the law side of the local Court. It also invests the Court of Chancery, or any judge thereof, sitting in court or in chambers, with a similar power of giving effect to the decrees and orders of the equity side of the Stannary Court. It also proposes to create an Appellate Court for deciding appeals from the Court of the Vice-Warden to the Lord-Warden, who shall, on the hearing thereof, be assisted by two or more assessors, being members of the Judicial Committee of the Privy Council, or judges of the high Court of Chancery, or Courts of Common Law at Westminster. These are amongst the leading features of the proposed measure, and we intend in our next Journal to enter more fully into the details.

We have reason to know that the bill in its present shape is not considered satisfactory, nor sufficiently extensive either in its design or in its arrangements. Amendments are contemplated, and we are enabled to state, that when it shall reach the House of Commons, provisions, amongst others, will be proposed for extending the jurisdiction to Devonshire, and enabling the Duchy of Cornwall to erect branches of the Stannary Court at Plymouth and Tavistock. The measure is one of high import to the mining interests, and shall receive from us the most earnest attention.

The GEELONG AND MELBOURNE RAILWAY COMPANY has just issued a new prospectus, which is inserted in our advertising columns; and it appears by that document a responsible board of directors has been secured, four being appointed by the shareholders and two by the Government, with the addition of Mr. S. J. COOKE (late treasurer to the Colonial Government), as manager, in London.

The proposed capital is 350,000*l*., and the Colonial Government, in the first instance, having guaranteed interest at the rate of 5 per cent. upon 200,000*l*., shares to that amount were immediately taken up in the colony, and the remaining portion were remitted to this country. The rapid progress of the works towards completion rendering it desirable to procure the whole of the plant and rolling stock from England, the directors applied for an extension of the guarantee to the entire capital, 350,000*l*., which the Government has conceded; and, in addition, free and unconditional grants of land for the line and intermediate stations, including 13 acres in the centre of Geelong, for the terminus, with harbour frontages for the pier and wharfs, the total value of which is estimated at 120,000*l*.; and as the company is relieved on this important point, always the most difficult in any proposed railway in this country, they calculate the entire cost of formation, including stations, permanent way, rolling stock, &c., will not exceed 10,000*l*. per mile.

The electric telegraph has been laid down by the Government within the company's fences, from Melbourne to Geelong, and is now in active operation. The pier, 1000 feet in length, and capable of receiving ships of 2000 to 5000 tons burden alongside, is already completed, and vessels are now discharging their cargoes, subject to the dues of the company. Information has also been received that the harbour branch and a portion of the line will be open for traffic next month, and the whole line ready for working by the end of the present year. Applications are now invited for the remainder of the shares, which will bear the interest guaranteed by the Government, of 5 per cent. from the date of payment, thereby securing a certain return to that amount.

At the meeting of the AGUA FRIA GOLD MINING COMPANY (the proceedings of which will be found detailed in another column), the few shareholders who have rallied round the directors appear to have determined, with a view to save their property, to secure the exclusive benefit from it, for a time at least, to those who come forward to assist the company in its extremity. The chairman, Professor ANSTED, announced that the subscriptions to the debenture fund only amounted to 7905*l*., little more than half the required amount; and it was agreed that, in addition to the interest of 15 per cent., a bonus of 50 per cent. should be given when the debentures were paid off. This stringent measure, which practically places the whole advantages expected to be obtained in the hands of the debenture holders, is, nevertheless, based upon sound principles; the subscription being confined to the shareholders, the high rate of interest and large bonus have merely the effect of securing a large share of the profit to those who come forward at the present emergency at the expense of those who refuse. Nothing could be more unjust than that those who hang back, in the hope that the property will be benefited by the exertions of others, should profit by their selfish policy; and nothing can be more equitable, than that those who run the risk, and bear the burden, should reap the reward.

A fact was elicited at the meeting which is very much to the credit of the directors, as exemplifying the good faith with which they are acting. It appears that these gentlemen are large holders of shares in the American Gold Hill Company, which is jointly interested with the Agua Fria Company in the property at Gold Hill, and would be the only probable purchasers were the interest of the latter company disposed of. Yet, instead of taking advantage of the strange apathy of the shareholders on the present occasion, they have exerted themselves to the utmost to raise the amount necessary to clear off the encumbrances, nearly half the amount of the subscriptions announced being their own, and are most anxious that the company should go on and obtain the profit which they believe is to be made. It remains to be seen whether they are again to be disappointed under this altered aspect of affairs. Another week is allowed to receive additional subscriptions, and it is difficult to suppose that the proprietors will remain so blind to their own interests, and to the honourable manner in which they have been treated, as still to withhold their support. That at least the minimum amount of 10,000*l*. will be raised may be regarded as certain; and those who have had no share in it may shortly have to reproach themselves that their more enterprising and clear-sighted fellow-proprietors have obtained a reward to which they are most justly entitled, but which was offered alike to all, and in which all should have shared, by contributing according to their means.

In another column will be found a report of the cause *CLARKE v. RONALD*, which was heard before Vice-Chancellor WOOD. This arose out of the concoction of the AUSTRALIAN FREEHOLD GOLD MINING COMPANY, which has attained nearly the same unenviable notoriety as its competitor, the LAKE BATHURST. It appears that when this association was brought before the public, shares to the amount of 54,855*l*. were taken; the directors appropriated to themselves 5000 without payment; a further quantity of 1550 were given to the stockbrokers, solicitors, and other officers of the company. Messrs. MATTHEWS and KNELL, the vendors of the worthless ground, out of the 500 acres, 300 being under water, requiring at least five years to evaporate, received as their portion of the spoil 12,500*l*. in cash, and 12,500 free shares. At another period the directors had taken 7000 shares, which they had not paid upon for upwards of a year. They had likewise withdrawn 4700*l*. as commission for brokerage on the very shares they had appropriated to themselves. In 1852, with the company's own funds, they had rigged the market, with a view of forcing the shares to a premium. At a subsequent period, when they had ascertained the estate was valueless, instead of honestly announcing the fact to the proprietors, they published an advertisement, stating that their staff had arrived in Australia, and were about to commence operations. The meetings that have taken place in the present year for the purpose of winding-up, are so recent that it is not necessary further to allude to them, but the facts disclosed show the necessity that such should have

been done long since. This company, it may be remembered, was on the so-called Cost-book System, which in this and similar projects appears to have been conveniently used in order that all liability might be avoided, and we have always contended that both directors and shareholders in these delusive adventures have been perpetrating a system of illegalities. The Vice-Chancellor, most properly to our thinking, characterised the whole affair as a swindle, and animadverted most strongly on the conduct of both plaintiff and defendant, stating that, as there were other circumstances still further to be heard, it would be better that some arrangement should be made elsewhere than in Court.

We make no further comments on the conduct of the promoters or directors, but where so much misrepresentation has been made, and such bad management (to use the mildest terms) exercised, and this is, unfortunately, not an isolated case, another fatal blow has been given to mining enterprise; and it is to be regretted that such cases as these are tried by the civil code, instead of the criminal jurisprudence of the country. One or two examples made would, probably, deter systematic attempts to plunder the public.

We have much pleasure in calling the attention of our readers to the important and satisfactory information received by the FORT BOWEN COMPANY, from their manager, Mr. RAM, and also to a corroborative account, extracted from the *Aspenhill (Eden) Daily Courier*, both of which will be found in another part of our Journal of to-day.

In the annals of foreign mining, perhaps, there is no company which has had to contend against so many adversities as this one; for, almost from its first existence, difficulties of one kind or another have continually beset it. We, however, congratulate both the directors and shareholders upon the happy turn in their prospects, and trust soon to see that their praiseworthy perseverance to develop the undertaking has been crowned with success. The large interest which the directors alone have taken in this mine has always been a guarantee for the *bona fide* nature of the concern. It is not an opinion expressed for the first time to-day, "that the Fort Bowen Mine is one the richest gold mines yet discovered, and cannot fail to prove highly remunerative, if properly worked." And we heartily join in the language of our contemporary on the Isthmus, in hoping "that those who have expended so much in an attempt to develop its mineral resources may be abundantly remunerated." With the almost certain prospects of profitable return, we presume the company will not experience any difficulty in procuring funds to carry it on.

We cannot close these few remarks without drawing attention to one important fact—viz., that the idea of the climate being unhealthy to persons of steady and sober habits is altogether disproved, as not a single case of sickness has occurred to the staff during the whole time they have been on the Isthmus. We understand the ordinary general meeting is to be held, at the offices of the company, on the 14th instant.

A very valuable paper was recently read by Mr. P. S. REID, "On Practice with Gas at Blowers," before a meeting of the North of England Institute of Mining Engineers,* at which Mr. NICHOLAS WOOD presided. The author justly complains that the normal condition in which gases are found in mines had not been satisfactorily investigated in a practical manner, which he accounted for to some extent by observing that the genius of DAVY, when it invented and presented the safety-lamp to society, gave us also such an overbearing confidence in its efficacy, as to cause us to relinquish further enquiries on the subject as unnecessary. Mr. Reid disapproving of such apathy, has devoted his enquiries to the fountain head—namely, to the production of carburetted hydrogen in coal strata, with a view of tracing the physical causes of its accumulation, and explaining the philosophical and practical results. For this purpose he selected the Pelton Colliery, which he fully described, and illustrated his details by a very accurate drawing, which is copied in a lithographed form in the published *Proceedings* of the society. We regret that our space will not permit us to follow Mr. Reid through his interesting explanation of the localities, or to give at length the particulars of the eruptions of gas which he describes, and which he assures us "were very terrific in their appearance, and the noise which they made in passing through the water was similar to that of artillery;" had they continued permanently instead of by sudden outbursts, there would have been no choice in advancing into the coal, but to have increased the air to such a quantity as to dilute the gas to an innoxious point. Safety lamps were almost valueless, and he had known every man working in the returns obliged to retreat out in the dark to the flat, the only utility of his Davy being to warn him of the fact, which his own sensations told equally soon, that he was working in an irrespirable atmosphere, and that if he did not retire asphyxia would be his fate.

Mr. Reid divided his subject into three heads—first, as to the origin of the gases we meet with in coal mines, both in the coal itself, and in the circumstance of blowers; the second referring to the means which he suggests for contending with inflammable gases in this shape; and, thirdly, with regard to such further steps as may be necessary to follow out future investigations into this important subject. Gas, it would seem, can only be produced in coal mines in three positions,—firstly, by mechanical compression on seams of coal; secondly, by subterranean heat acting upon coal; and, thirdly, by the decomposition of animal, vegetable, or mineral substances, as in the case of pyrites. The latter can, however, scarcely arise except in the case of decomposed pyrites; even then it is not the sort of gas generally met with; and instances of sulphuretted hydrogen did not appear to him to have been sufficiently proved to demand more than a passing remark, that it ought not to be lost sight of in future investigations. Subterranean heat had not been proved to exist in seams already reached sufficient to produce gas; while, on the other hand, there seemed abundance of proof, that it is not the deepest seams which are most prolific of gas; hence, until more conclusively established, he seemed disposed to reject the theory that gas evolved in coal mines by this agency. With regard to issues of gas from mechanical compression, it would appear, from all the evidence hitherto brought forward, that this must depend upon two circumstances—namely, the natural structure of the coal, and the power or force employed; or, in other words, upon the weight of the strata bearing upon the coal in its natural state in the mine. This view is illustrated by reference to the Hutton seam, previously described in the paper, which is known at Bedlington as a hard steam coal, and is there almost devoid of issue of gas; while the same seam at Wall's End, Felling, Hebburn, and in the Wear, but with an entire change in its natural structure, is notorious for its production of gas, so much so as even to light up in the tubs, in which fractured pieces are being brought to bank, so soon as a few of them are lifted up, and a candle thrust in between them.

Sir HUMPHRY DAVY had early pointed out that explosive gas was evolved from coal by mechanical pressure, and this he proved by bruising some large lumps under water, when they gave off inflammable gas. If, therefore, fire-damp or gas can be forced from isolated fragments of coal by bruising them under comparatively light pressure, it is not difficult to perceive what must be the effect of enormous weights of strata pressing upon coal in the natural bed, especially when still further increased by the excavation of large tracts of pillars and workings. The natural issue may, perhaps, be also influenced by the specific gravity, by the natural or chemical-mechanical structure of the coal, or by its predominant chemical constituents, and probably a minute microscopical examination may hereafter lead us to compare different coals together, or even to measure the minute pores from which the gases issue, and thus further verify this theory. Blowers occur under such different phases, that it is difficult to come to an accurate conclusion. With some the gas comes off dry, and there is a total absence of water; while in others it comes off with water, and it cannot be doubted that its issue is intimately connected with that element. In some instances the blower lasts for a few days or months; frequently it has been known to endure for years; while the Pelton blower of 1847, particularly alluded to in this paper, ceased very soon after the final diminution of water. One peculiarity of this blower was that both it and the water came from the floor of the mine, apparently from a lower level, and whenever an attempt was made to go deeper than the Hutton seam gas was met, accompanied with large feeders of water; and in one instance, where a boring was made 200 ft. lower, there was found a large quantity of gas and water mixed, and from this point, although five years have since elapsed, the gas has never ceased.

Mr. Reid attributes the Pelton blower to a great derangement of the strata over a considerable extent of country, in which wide range there must be many crevices or fissures connected with the main trouble, all acting as service pipes from some head of water, probably at a distance, and that until the moment of cutting the feeder this column of water had held back the gas in a highly compressed state; but so soon as it was re-

* *Mining Institute Journal*.—A. REID: Pilgrim-street, Newcastle-upon-Tyne.

lied of this pressure issued into the mine at the same, or even a greater pressure than that of the water itself. This theory is illustrated by a diagram, and sustained by scientific calculations as to the probable pressure from such a state of circumstances; and if it is recollected that the gas and water both came from the floor of the mine, that there was no knowing how far these fissures might proceed downwards, and that large masses of strata, when separated for a length of time by so incompressible an agent as water, might, on being relieved of it, suddenly collapse, it was here argued that the pressure of gas, and the intermittent character of the blow, were to a certain extent thus accounted for and explained.

Rare and eccentric occurrences of this nature, hidden from the human eye, must necessarily, as to their primary causes, remain involved in much mystery, and we now proceed to notice Mr. Rain's suggestions as to future contention with blowers of this description. In his view, the underground furnace is peculiarly adapted for such blowers in coal mines, and he conceived that mechanical or steam-jet, or, in fact, any ventilation which would cease simultaneously with the first cessation of the primary mover, by the fracture of machinery pipes, &c., would be imprudent. He also deprecated a too confident use of the safety-lamp, which he felt has been relied on to a dangerous and improper extent, and he earnestly urged future investigations, both to analyse the gases, and to adopt more conclusive measures to determine the pressure. The outline which we have been enabled to give of this very interesting paper will, we trust, have the effect of attracting attention to it, and in strongly recommending it to the notice of those who feel interested in tracing the sources of danger and ascertaining the means of security in coal mining, we can assure those who value our judgment that its perusal will amply repay the practical as well as the scientific enquirer.

RATING OF MINES.

By the present law of England, coal mines are, of all mines, alone subject to the payment of poor's rates. This burden was primarily imposed by the first Poor Law—the statute 43 Eliz., c. 2, s. 1. In construing this statute the judges have held, that "all things which are real, and yield a yearly revenue, must be taxed to the poor." This exposition, however, was not required in order to bring coal mines within the pale of the statute, for they are therein expressly, and by name, mentioned as one of the subjects of taxation to the relief of the poor. Singularly hard as this enactment pressed upon coal mines, yet the courts, in construing the statute, gave to it a meaning and a force which showed more clearly the heavy burden of the statute—a burden which it can scarcely be supposed was intended by the Legislature to attach to mines.

Thus, early in the history of the above statute a very remarkable judicial determination decided that as the above statute makes no reference as to whether the occupation of coal mines be profitable or not, so the lessee of such a mine was liable to be rated to the relief of the poor, though he either derived no profit from his mine, or it was worked at a loss; and the reason given for this determination was, that such coal mines, whether profitable or not, are, when occupied, rateable under the express words of the statute. Now, although coal owners may feel inclined to complain at what to them may seem an unfair straining of the law against them, yet, upon consideration, it will be found that the *profit* of matter subject to poor's rate is not an element, necessary in order to impose the liability. Take the familiar case of a *bridge*, the current expenses of which are not covered by the tolls; so take a railway, or even a tradesman's business premises or shop, in all these cases the question of profit cannot, and does not, control the liability of rating. So far, then, as the exposition of the statute is concerned, we think the judges came to a right and sound conclusion. But one cause of complaint or regret is, that the Legislature should have thought it consistent with sound policy to take that by a pound rate, the working of which is a consumption of its substance.

For instance, suppose a given stratum of coal be let for one year, within which time all the coal is worked, at the rent of 100*l.*; now, if the poor's rate be one of 6*s.* 8*d.* in the 1*l.* (which is not uncommon in mining districts), it is clear that no less a sum than 33*l.* 6*s.* 8*d.*, amounting to one-third of the whole value of the coal (less the cost of getting), would be payable for one year's poor's rate. This absurdity arises, as before stated, from the fact that in taxing coal you tax the substance of the soil—that is, that which nature will not, humanly speaking, again replace; whereas, in taxing a field of grass, let at 100*l.* per annum, the tax amounts to one-third of one year's annual value only. The above is one of the many evils which will be called into existence if the now pending attempt to rate metallic mines to the poor's rate be confirmed by the Legislature.

THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN BIRMINGHAM.]

MAY 3.—The excitement, hopes, fears, and anticipations, consequent upon the recent quarterly meetings of the ironmasters, have subsided; the strike amongst the men is all over, the district has resumed its ordinary industrial appearance, and by some trade is reported to be rather improving than otherwise. It is said that within the last few days increased orders for iron have reached some of the large houses, and that prices, particularly for pigs, are firm. The whole of the local papers interested in the iron trade are, however, silent as to any decided improvement, and the editor of *Ard's Gazette*, who is evidently well informed on the subject, writing on Monday last, says—

"This trade continues in a very languishing condition, marked by an unusual want of confidence. The announcement of further disasters is daily dreaded, and the most sinister suspicions are indulged, though in many cases without the slightest foundation. Hence the tendency is still further retrogressive, although iron for some purposes, such as the manufacture of tubes and chains, has been in considerably increased demand; and also for various sorts of plates and sheets for home use orders have been rather more easily given. The export trade, however, particularly with the United States, remains without the slightest animation; and as our heavy consumption is so intimately dependent upon that market, but few of the works in this district are employed more than half-time, and very many not to that extent. It is calculated that of 144 furnaces said to be in blast at the close of last year, more than 50 are now blown out, while others have reduced their make to a very inconsiderable amount. The total reduction in the production of the district is supposed to be full 3000 tons per week, or nearly 40,000 tons in the quarter; and when the fact that stocks of raw metal, both in the makers and manufacturers' hands, are small is taken into consideration, in addition to this reduction of make, there is certainly now no reason to lay the blame of unremunerative prices upon the over-production of pig-iron."

The *Birmingham Journal* and *Herald* are not more satisfactory. Nevertheless, hopes are entertained of a speedy revival; and we are looking forward to a return of American orders. The demand for naval and military purposes still continues, and some of the large works are well employed. In addition to the numerous articles heretofore made at the works of Fox, Henderson, and Co., it is understood the firm have entered into a large contract with the Government for the supply of an immense number of small arms, exclusive of other work intended for the seat of war.

The demand for marine boilers continues, and still further improvements are constantly being made in the manufacture of them at Walsall. The trade has received an impetus from the arrival of a large order for saddlers' ironmongery from Government. Messrs. Chawner and Newman, Lichfield-street, have received, for the use of the Royal Marines, an order for 3000 cavalry saddles, and 5000 sets of military harness, which will afford constant employment to the operatives for some time to come.

The General Hardware Trade of Birmingham continues dull, and the fancy trades are particularly so.

There is a visible increase in the pauperism of the town, differing very materially from that which prevailed during the winter. Then it was an out-door labour pressure, but now it is mechanical, and embracing the hands belonging to large works, which heretofore gave them constant employment. Amongst the most depressed trades is the pearl-button making, the workmen connected with which are daily entering the workhouse.

Our local contributions to the Paris Exhibition have been more numerous than was at first anticipated, and include some of the choicest specimens of Birmingham manufactures, produced at the establishments of Messrs. Elkington, Mason, and Co., Mr. G. R. Collis, Mr. Oastler, Mr. R. Winfield, J. Hardman and Co., and other eminent firms. The manufacturers of the heavier class of goods have not been behindhand in the preparation of ironwork, of a useful and ornamental character; and already large cases of goods have been forwarded from this town and the iron districts for exhibition in the French capital. Amongst the numerous contributions may be specially noticed those of the Coalbrook Dale Company, whose display at the Great Exhibition of 1851 attracted special attention. This eminent firm have forwarded to Paris a magnificent collection of ornamental castings, including life-size figures, grates, ballustrades, balcony-railings, several ingeniously designed umbrella-stands, fenders, &c., all of which were designed by English artists, and executed by their own workmen. The collection includes a grate, original in design, chaste in its effect, and exceedingly unique in finish and construction;

it is called "Sherringham's Patent Register," and so arranged that the draught may be regulated by a slide with the greatest nicety, or shut out altogether, and the whole closed or shut up entirely, for bed or other rooms; at the same time, that both fender and ash-box are dispensed with by means of the "guard" or "footman." Two other grates of superior design and excellent workmanship were also included in the collection, together with fenders, in perfect keeping with their style and character. The bronze statues included the celebrated "Eagle Slayer," "David Sleeping," "Cupid Indignant," &c.

In connection with the public meetings recently held here, interesting to the readers of the *Mining Journal*, may be noticed that of the Institution of Mechanical Engineers, which was presided over by Mr. Fairbairn, F.R.S. A paper was read by Mr. P. Rothwell Jackson, of Manchester, "On a New Machine for Moulding Cog and other Wheels." The object of the machine is to obviate the necessity for constructing a complete pattern of the cog-wheel required, as in the ordinary plan of moulding, which involves great expense and delay, and this is effected in the new machine by employing a small segment pattern, consisting of three or four teeth only, which is fixed upon a steady vertical slide, carried at the end of a strong, or projecting arm, which slides horizontally upon the main frame of the machine, and can be adjusted to suit any diameter of wheel that may have to be moulded. It was stated that the machine was in full operation in Manchester. The second paper read was a description of an "Improved Tuzere and Smith's Hearth," by Mr. John Fernie, of Derby, showing the mode of construction adopted at the Britannia Foundry, at Derby, for an improved water-tuzere, or tie-iron, that had been referred to at the last meeting of the Institution, and which was found to be more desirable than the ordinary tuzeres, in consequence of the water-space being entirely open to the cistern, instead of communicating only by small pipes, as in the ordinary tuzeres. Another interesting paper was read, by Mr. E. Allen, of London, "On the Commercial Economy of Working Steam Expansively in Marine Engines," and on a new double-expansion marine engine, designed for the purpose. The important theoretical economy, it was stated in the paper, of the expansive principle has now been for some time established and admitted; but its practical application has been hitherto mainly confined to land engines, and even in these has been for the most part limited to districts where the fuel is dear. The general mode of working the steam expansively has been to enlarge the cylinder and engine altogether, and cut off the steam before the end of the stroke, so that for the same work done a considerably greater weight and cost of machinery is required, also occupying a greater space, and on this account the application of expansion to marine engines has been so long held in abeyance. The importance of reducing the consumption of fuel in marine engines may be estimated from the fact, that the space and weight of fuel carried by steamers is, in all cases, with the exception of river boats, making short passages, a far larger item than the space and weight of machinery.

Amongst the district scraps, I find the following:—Mr. Bailey, of the Whillingsworth Colliery, Wednesbury, appeared on summons, preferred by six of his men, for the recovery of 6*d.* per day, deducted from their wages, without notice. In reply, the stoppage was admitted, on the ground of it having been the usage at the colliery to raise or lower the wages according to any alteration which might take place at the works of Messrs. Lloyd, Foster, and Co. Mr. Leigh, the magistrate, could not admit usage to dispense with the legal right of the men to notice, and ordered the payment of the money sued for.

IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

MAY 4.—The Iron Trade is still participating in that state of uncertainty which seems to exist in all branches of commerce, except those engaged in the manufacture of warlike stores. Considering the low price fixed upon the value of iron, and the undue advantages which are always taken in times of extreme depression by inferior makers, in under selling, prices may be reported as tolerably steady, and the demand for some descriptions of iron for railways has a little improved. Now that the peace negotiations are ended, it would seem probable that a protracted war only will settle our differences with Russia. This being the case, it is extremely important to know what are our food prospects for the present year. An immense amount of land has been sown, but the extreme lateness of the season impeded much vegetation. With a good harvest to come, it is not unlikely that the general trades of the country would improve, to a certain extent.

The Steel, Cutlery, and General Hardware manufacturers, at Sheffield, have received more than the average amount of remittances, and fewer orders than usual, from which it may be inferred that the Americans are anxious to restore their markets to a healthy state again. Private mercantile advices from America state that business generally is improving, and that in the course of a short time extensive orders may be looked for from the States. Trade on the Continent is improving, but in Australia it is depressed. The Table-knife Trade has felt the depression most, and the workmen engaged in a certain description of this manufacture have voluntarily reduced their wages 5 per cent. It is believed that the retailers' stocks of goods are low, and, no doubt, when political matters assume a more decisive form, an improvement may be expected. The Sheffield trade with Turkey is improving, and it is to be regretted that so few Government orders find their way to that town.

A private letter from Paris received here gives a very unfavourable account of the interior arrangements in the Paris Universal Exhibition, owing to a breach of contract with one of the contractors.

Messrs. Knowles and Co., of Sheffield, are manufacturing four gigantic candelabra for the Pacha of Egypt. The material is German silver, electro plated, is 17 feet high, and of an elegant appearance.

There has been no material alteration in the position of the Coal Trade, which, on the whole, remains tolerably steady. An explosion of fire-damp took place at the Victoria Colliery, Barnsley, on Saturday, which, luckily, did not end in loss of life, although a miner was injured. The accident was the result of the falling of a portion of the roof of the mine.

Six persons have been killed by the explosion of a boiler at Hawthorn Mill, near Rawtenstall, Lancashire, on Wednesday. A judicial enquiry has been going on, and adjourned for the purpose of procuring the opinion of some scientific man, in reference to the condition and capability of the boiler, and the cause of the accident.

A proposed extension to Loseve, Derbyshire, of the Heanor Branch of the Erewash Valley Railway, is suggested, and it is now contemplated to construct a line of railway connecting the Erewash Valley Railway with the Ripley Branch of the Midland Railway. We are told that the importance of this line, as a mineral line, is incalculable, inasmuch as it will open out to the public one of the most important and extensive districts of unworked coal and minerals in or near to the far-famed Valley of the Erewash. At the lowest calculation, it is estimated that the extent of coal which would be thereby brought into the market (and the existence of which has been proved, and is well known), would be upwards of 1000 acres, nearly the whole of which is entirely unworked, and at present without any means of communication.

The Great Barnet Court, for the Sake and Wapentake of Worksop, Derbyshire, was held in the Court-Hall, in that town, on Monday last. After the customary routine of adjusting the "dishes," or measures, by which lead ore in the Queen's field is bought and sold, J. C. Newbold, Esq., the steward of the Court, offered a few remarks on the transport of sales effected between miner and miner, which he strongly recommended to be registered in the book of entries. If not registered, the seller would not be exempt from trespass actions from any landowner whose cattle might meet with injury in or upon the mine sold; and he also strongly urged the necessity of fencing the mines.

The eighth annual meeting of the Eram Mining Company was held on Friday, at the Black Rock, Castle-street (Mr. J. Pitt in the chair), when the committee of management, in their report, congratulated their co-partners on the increasing prosperity of the undertaking. The amount of ore sold during last year was 8221*l.*, being an increase of 2592*l.* over that sold the previous year. From the present state of the mines, the committee had full confidence in a further increase in the value of the property. There was now in stock, ore dressed and ready for the market worth 840*l.*, and undressed worth 70*l.* From the statement of accounts, it appeared that 8221*l.*, realised from the sales of ore, had enabled the company, after paying all expenses of working the mine, the rectory tithe, and claims of the lord of the manor, to show 3800*l.* profit, which the shareholders had received in five dividends during the year. The chairman stated that they had offered 604 tons for sale, but there was only one bidder, and they, therefore, withdrew it. Another gentleman, who had attended the sale then made them an offer privately, but they refused to sell, except by ticket;

as he had been present, and had not bid previously, they did not think it right to accept his offer. There would be another sale in a fortnight, by which time they hoped to have 85 tons, which would realise upwards of 1200*l.*, and out of which he had no doubt they should be able to declare a dividend. If the ore was not sold at the next sale, the company would probably smelt it themselves—indeed, he believed they would ultimately, for their own protection, have to become smelters as well as miners, for the buyers of ore, acting in concert, had divided Derbyshire into districts, the apparent understanding amongst them being, that certain of them should have the market in one district to themselves, and by that means buy the ore cheaper. The committee of this company intended to set their faces against and frustrate the combination. There was a smelting mill belonging to the district, which he believed they could take.—Mr. Abraham Leon put some questions in reference to the drift which it was expected would clear the works of water, and open up the most valuable portion of the mine.—The Chairman replied, that he could not say what length of time it would take to finish this drift so as to get the water away—they might be sometime before they set the water at liberty, or they might do so to-morrow.—Mr. Maltby, the superintendent of the company's works, then read a most satisfactory report of the progress of the works during the year.—W. Cantrell, Esq. (of Wirksworth), and J. T. Parker, Esq., put some questions in reference to the works and the adjoining mines, which were answered to their satisfaction.—Mr. Cantrell then moved, and Mr. B. Schofield seconded, the adoption of the committee's report, and that it be printed for circulation amongst the shareholders. This was agreed to unanimously, Messrs. R. Mitchell, G. Hawkey, C. Goodwin, J. Elliott, F. J. Mercer, and W. Hobson, were re-elected as the committee. Thanks were voted to the chairman, treasurer, committee of management, and auditors, for their past services; and to Mr. George Maltby, the agent, for his untiring attention to the interests of the company. Mr. J. Fordham, their worthy treasurer, and Messrs. J. B. Roberts and W. Greenwood, the auditors, were requested to continue their services for the ensuing year. The resolution was passed unanimously, and acknowledged by Mr. Fordham. The shareholders afterwards dined together.

The monthly returns of the Board of Trade, up to the 31st of March, show a decrease in the value of metals exported, amounting to 338,736*l.*

ECONOMY IN OBTAINING STEAM POWER.—During the week, we have had an opportunity of inspecting Mr. Craddock's new boiler, erected at the Ranelagh Wood-cutting Works, Pimlico, and can bear testimony to its merits. The boilers, which are tubular, are upright, instead of being in a horizontal position, whereby a great economy of space is obtained; but its great utility is in the saving of fuel. We were informed by the manager of the works that, previous to the introduction of Mr. Craddock's engine, they had been in the habit of consuming 18 tons of coal per week, whereas at present they were enabled to dispense entirely with that article, the fuel now used being the shavings and sawdust obtained from the wood, which heretofore they had to burn as refuse. The fire-places are somewhat larger than those in ordinary use, but the steam can be got up quite as efficiently with sawdust and shavings as coal, and the grates will burn cinders of the worst description. Many doubts, at the time the invention was brought forward, were entertained of its practicability. It has been now, however, some time in use, and there can be no longer any question of its actual advantages. When the great amount of steam-power in England is remembered, and the high price paid for coals, any invention which will enable the application of a cheaper fuel cannot but be regarded as a boon. In this instance, we have a material successfully used which hitherto has been regarded, not only of no value, but as an incubus. We are aware that there are many who are prejudiced against innovations on the old system, but those who doubt should now see this engine at work—it is now no longer a crude theory, but an absolute fact.

CARBONISATION OF PEAT.—M. Bussou du Maurier has submitted a description of his process for the carbonisation of peat, to the Universal Society for the Encouragement of Arts and Industry; and the Committee of Chemical Arts attached thereto have carefully examined the process, and a report thereon, from which we gather that the inventor mixes with the peat an almost valueless and very abundant article—coal-dust. After having reduced the peat to a powder, he mixes the coal-dust and peat intimately together, and, so to speak, distils the compound at a high temperature, the product being an illuminating gas and the residue a coke, superior to that produced in the manufacture of gas by the usual means—in fact, equal to charcoal in every respect, being especially adapted for all metallurgical purposes, and the cost of production low. The raw materials are both comparatively valueless, the coal-dust, indeed, often involving a large expenditure for the removal of it from the bank; and as to the expenses of manufacture, they consist—1. In the grinding of the turf by means of a plaster-mill, which operation is inexpensive, from the softness of the material to be ground.—2. In the mixture of the coal-dust and peat, for which a cylindrical mixer, invented by M. du Maurier, working with every facility, is used.—3. In the heating of the compound. The following is the inventor's description of the process:—"Noting that bituminiferous coal, when distilled, dilates considerably, and that, on the contrary, vegetable matters, such as peat, are rather disposed to lessen (or at least to a certain temperature), and as the water and tarry matters disengage themselves from it, to yield to a small pressure, I thought to oppose these different qualities to each other to arrive at my object—the compression of peat without mechanism, hoping that the coal during its distillation would take up the vegetable matter, and so combine therewith as to form first a compact mass, and then a solid tough coke. I took a certain quantity of coal-dust, such as is usually found in collieries in large quantities, and the value of which is so small that it is difficult to get rid of without paying for its removal; with this coal-dust I mixed, by the aid of a machine of my own invention, an equal quantity of well-dried peat, reduced to powder by means of a plaster-mill. I then filled an iron retort with this mixture, reckoning that the coal, as swollen by the effect of heat, and met with resistance from the retort, would be forced to take part of the place occupied by the peat, and with it would form a cake of a solid and compact nature. I obtained a coke or fuel, of which the specific gravity, although a little less than that of the best Newcastle coal-cake, is such as to offer the consistence required to render it fit for all purposes where coke (pure coal) is used, whilst it is applicable to many uses for which it is with difficulty employed. This half mineral and half vegetable fuel, which was invented by me in 1850, has been found very valuable for manufacturers of steel tools, &c., and would by this time have been in extensive operation in England, but for the death of one of my partners. The importance of well pressing the peat and coal-dust in charging the retort will be easily understood, since that operation regulates the greater and less density of the fuel to be produced; and as in the production of peat coke a suitable density has been all that was wanting, the chief feature of the invention is this combination. Whatever consistence could be given to the carbonised peat, it had always the defect of burning too easily, whilst coal-cake presents disadvantages, by which the defects in each article are made to assist in the production of decided advantages." As to the density of the coke, it could be increased to almost any extent by the application of pressure to the mixture during its carbonisation. Then the gas coming from the mixture will be always less charged with sulphurous and sulpho-hydric acids than that obtained from coke alone—thus having an incontestable superiority, from its much greater purity. The committee appreciating the immense advantages which would result in many localities from the propagation of this invention, expressed their best wishes that the invention might be carried out as soon as possible, and, desiring to recompense the inventor, recommended that he should be presented with a "medal of honour," and, in consideration of that recommendation, it was resolved that upon the proposition of the Committee of Chemical Arts, whose report was approved by the sitting directing committee, a large medal of honour should be addressed in the name of the society, as a recompense and encouragement to M. du Maurier, the inventor of a remarkable process for the carbonisation of peat.

SALE OF MINING SHARES.—Mr. T. P. Thomas submitted for sale, by auction, at Garraway's, on Wednesday, a large number of mining shares, and judging from the attendance of purchasers, it would appear that disposing of such property by this method is certainly attractive, and we are informed that every lot submitted was sold. The lots disposed of were:—500 Vale of Towry, put up in 10 lots of 50 each, sold from 1*l.* 1*s.* 6*d.* to 1*l.* 1*s.* 6*d.* per share; 700 Tinsford, 1*l.* 10*s.* to 1*l.* 12*s.* per share; 500 Mendips, 1*l.* 1*s.* 6*d.* to 1*l.* 1*s.* 6*d.* per share; 400 Drake Walls, 8*s.* 6*d.* to 8*s.* 6*d.* per share; and 1000 Callington, in lots of 50 each, caused considerable competition: a portion was sold as low as 6*s.* 6*d.*, continuing gradually to rise until they reached 12*s.* per share.—Mr. Esser being the purchaser of the whole 1000 shares.

The New Linnaea Mining Company will be shortly wound up. The mines, pertinences, buildings, machinery, smelting apparatus, furnaces, and plant, will be submitted for sale by auction, by Mr. T. P. Thomas, at Garraway's, on Thursday next. The committee of management have been compelled to adopt this course, in consequence of the call for additional capital not having been responded to by the shareholders.

The Lamerton United Copper Mine, with the machinery and materials, was submitted to auction at the Mart on Monday, by Messrs. James White and Son, but failed to obtain a bidder, and was bought in at 195*l.*

The Royal Santiago Mining Company recently instructed Mr. Marsh to sell by auction 550 shares, in lots of 10 shares each, forfeited for non-payment of the call of 20*s.*, made at the half-yearly meeting in January last. The first portion were sold at 6*l.* 0*s.* 6*d.* per share, and towards the end of the sale 5*l.* 16*s.*, the total amount realised being 3212*l.* 15*s.*, or double the value at the time the call was made, the market price at that time being 2*l.* 17*s.* 6*d.* to 3*l.* per share.

RATING MINES DUES.—A practical and experienced miner, writing on this subject, says:—"I have carefully read the lengthy communication from Mr. W. Treacy, in your last Journal, but cannot see the force of his argument, and think that Mr. John Perry states more to the purpose, and true—Reform and lawyers did the mischief; and I am of opinion that Mr. Kendall's bill will not meet such opposition, or even notice, from Cornwall. I was once summoned there for 'church rates on the dues,' and proved successful. The dues ought to be charged with the rates, and allowed by the lords, who get the lion's share, whether the mines are profitable or not. They ought to grant seats at lower rates—instead of 1-15th, (say) 1-30th, or even 1-30th."

Mr. R. P. Harding has been appointed by Sir W. Page Wood official manager of the Pentaglyph Cutting, Carving, and Engraving Company, now in course of winding-up under the Joint-Stock Act. Mr. Harding has also been appointed by Master Tinnin official manager of the London Mercantile Life Assurance Company.

QUARTZ MINING IN CALIFORNIA—No. II.

GENERAL REMARKS.—Besides the preceding, there are the Gold Hill Mill, the mill known as Scott's, now owned by Mr. Conway (both water-power), making a total of 11 mills now in operation, within a length of two miles on Wolf Creek, seven of these being within less than half a mile.

The cost of obtaining and working the quartz is estimated thus—quarrying 50¢, hauling 5¢, crushing and amalgamating 5¢—total \$1.05, or 5s. sterling per ton (there being no royalty, nor proprietors owning their claims), and allowing a dollar and a half for superintendence and contingencies, all quartz yielding over 15s. or 3d. sterling per ton, the excess thereof is considered to be profit. I subjoin a tabular statement of quartz mills in the immediate district of Grass Valley and Nevada, now in operation, or discontinued.

The quartz veins—Can quartz be profitably worked, or not?—must be considered as set at rest from the problem being solved affirmatively, in so far as the district of Grass Valley is concerned; the town of Grass Valley may be said to be chiefly dependent on the success of the quartz mining in this vicinity. Adam and Co.'s agent informed me that three-fourths of the gold purchased by the House, in that locality, was returned gold, obtained from the various quartz mills in the vicinity. These have been set going by parties possessed of small means originally, and, with very few exceptions, have been built up, and have been extended, solely from the profits; if these were not continuous they would be shut up and abandoned.

When it is considered that the 23 mills enumerated below must have cost on an average, at the high rates of labour, and of everything entering into their construction, \$50,000 each, or \$1,150,000, and of that amount not more than \$300,000 has been imported capital, I cannot resist the conviction, and no other conclusion can be come to, than that quartz mining, in a good location, with an abundant supply of wood and water, and with quartz yielding over 30s. per ton, or 4s. sterling, on the average, will be a profitable business.

Looking to the fact that but a small proportion, comparatively, of the quartz ledges in this State have been well prospected, it may be fairly presumed, when wages and expenses are equalised here, as in other countries, which the low prices of provisions and supplies of all kinds here will surely bring about, this may become one of the greatest, if not the greatest, and paramount interest of this State; as gold, from its universal currency, and exchangeable power, is of essential necessity for all commercial purposes in a new country, and to arrange and liquidate the balance of trade, where scarcely any other article of export is yet matured (quicksilver excepted) and which, so long as its relative value and use obtains, will here be sought after with the greatest avidity, and attract the greatest amount of labour. As agriculture in this State, from the great productiveness of the soil and climate, and the want of a market for the surplus produce over consumption, must be retarded in its development until reduction in the price of labour admits of the extended cultivation of the vine, and production of wine, in the districts of San Jose, Santa Clara, Los Angeles, and southern regions; rice growing in the tule lands of Rio Sacramento; cotton and tobacco on the uplands and plains; the raising of cattle and sheep, for which the pasture and wild oats on the coast and hill ranges seem to be as available as the valleys, marsh lands, and plains, which are peculiarly adapted for raising the valuable products first mentioned.

The capital now required to be embarked in, and to commence quartz mining with, to ensure a profitable result, is little more than one-fifth of that necessary when freight or carriage to the mine was from 10 to 20 cents per lb., now from 2 to 3 cents; earnings 20 cents per lb., now from 6 to 8 cents; wages from 7s. to 10s. per day, now from 4s. to 6s.; combined with the fact, that good wages may be obtained for \$5000, sufficient mining machinery and engines provided for \$15,000, including the cost of erection, and with a floating capital of \$3000, for contingencies while the mine is in process of yielding its return, making \$35,000, or 5000l. in all, exclusive of the expense of opening and developing the mine, which varies everywhere, according to position, extent, and local circumstances, is a sufficient capital for works of moderate extent. As cases in point, the Empire and Orleans mills have been put into operation for less money.

These facts ought to give increased confidence in this industrial pursuit, and create a reaction in its favour. Although it is much to be lamented, that through the incompetence of some agents, blamable extravagance, while acquiring their business, in others, the deplorable dishonesty practised towards them, and the almost fabulous sums demanded for quartz veins, untold in depth and productiveness, have caused, in several instances, capitals of \$350,000 up to more than half a million of dollars to be destroyed, and to disappear, belonging to foreign companies, chiefly English and French, while their shareholders were waiting for and expecting dividends, has thereby created a prejudice against California and Californian investments, which nothing but a fair return from the yet existing companies for the capital expended will remove.

LIST OF QUARTZ MILLS IN GRASS VALLEY AND NEVADA DISTRICT.

No.	Name	Location	Capacity	Remarks
1	Mount George	Grass Valley	100 tons	Working
2	Union	Grass Valley	100 tons	Working
3	Walt's Mill, Gold Hill	Gold Hill	100 tons	Working
4	Agua Fria Company	Agua Fria	100 tons	Working
5	Manhattan	Grass Valley	100 tons	Working
6	Grass Valley	Grass Valley	100 tons	Working
7	Empire	Grass Valley	100 tons	Working
8	French	Grass Valley	100 tons	Working
9	Bellevue and Lafayette	Grass Valley	100 tons	Working
10	Rocky Bar Company	Rocky Bar	100 tons	Working
11	Water Mill	Grass Valley	100 tons	Working
12	El Dorado	Grass Valley	100 tons	Working
13	Gold Tunnel	Grass Valley	100 tons	Working
14	Banker's Hill	Grass Valley	100 tons	Working
15	Banker's Hill	Grass Valley	100 tons	Working
16	Deer Creek	Grass Valley	100 tons	Working
17	Deer Creek	Grass Valley	100 tons	Working
18	Deer Creek	Grass Valley	100 tons	Working
19	Deer Creek	Grass Valley	100 tons	Working
20	Deer Creek	Grass Valley	100 tons	Working
21	Deer Creek	Grass Valley	100 tons	Working
22	Deer Creek	Grass Valley	100 tons	Working
23	Deer Creek	Grass Valley	100 tons	Working

Grass Valley, Nevada County, California, March 1.

J. WADDELL.

CALIFORNIA.—The steam-ship, *Northern Light*, has arrived at New York from Aspinwall with California advices to March 24, and 1868, 645. The recent excitement connected with the bank explosions has become a quiet one, and San Francisco and all California was as quiet as the quietest of the New England States.

The gold mines were yielding largely. From every section of the country the accounts were most flattering. Water was abundant, and never, as a general thing, had the miners been doing so well. Among business men money was tight, but all classes were looking forward to a speedy return of the good times. The miners in different sections of the country were making loud complaints of the heavy charges of the water companies, and in some places they had struck, and refused to take water until a reduction of the rates was made.

Some doubts were expressed in regard to the reported richness of the Kern River Mines, and letters had been received from the new diggings which pronounced them a humbug. The excitement was kept up, however, and large parties were departing for the newly-discovered places with every conveyance.

A boulder—gold, of course—had been picked up on the Michigan City flat claims, which weighed 5½ lbs. Its exact value has not been ascertained.

A lump of gold had been found at Whiting's Hill, Scott Bar, in a drift 20 feet above the bed of the river. It is 5½ in. long and 3 in. wide, shaped like a wedge, and valued at \$10-30 per ounce—\$3015 50.

The New York Tunnel Company, in Placer county, had struck rich diggings, and were taking \$400 to \$500 to the pan.

Each day (says the *Grass Valley Telegraph*) we notice accessions made to our mining population. The recent rains have set this portion of the community in motion, and we are glad to perceive very many turning their steps hitherward. There is plenty for them to do. New diggings have been discovered at Rich Gulch, which are found to pay well. Four parties started out to prospect on a hill side, and their diggings which have since yielded \$50, \$30, and \$15 a day to the hand, with water close at hand. At Pulson Flat, in the vicinity of Pleasant Springs, a party washed out \$500 in one day, besides a very handsome specimen, weighing 6 ozs.; and another party washed out 160 and picked up a piece of pure gold weighing over 13 ozs.

In Oregon Gulch the mines were said to be doing better than ever before, and many new and rich discoveries were being made. From one claim, six men in eight days had taken out \$23000. A beautiful specimen of California gold has come on in this steamer, which is represented to be in the shape of a dolphin. It weighs 187 ozs., and is valued at \$2460.

From the Cape of Good Hope, the mercantile advices reach to Feb. 17th, and are of considerable interest. The units regarding the Namaqualand copper mines was rapidly subsiding, and several of the companies have become extinct. The feasibility of a few, and the ignorance of more, have (it is said) become patent to the most credulous. Some of the shares, which at one time reached an enormous premium, were now at a discount. A few companies were still regarded with favour, and maintained very high premiums, although no ore has yet been shipped from any of them. During the height of the excitement more than a million and a quarter sterling was nominally subscribed, and mostly by persons of limited means. The distrust consequent upon the recent wash, and, therefore, very general, more especially as the Cape people had hitherto been free from such excitement. A report on the mines by the Surveyor-General, Mr. Bell, had recently been published, which, while it holds out little hope to the rash and ignorant, gives sufficient assurance of the abundance of rich

copper ore to warrant investments to a large extent, if carefully conducted. The quantity of copper ore exposed in the Namaqualand district is estimated at 1000 tons, averaging, it is said, 30 per cent. of copper, and 5000 or 6000 tons are expected to be sent this year. Hitherto Phillips and King have been almost the only shippers, but a Mr. J. O. Smith, who possesses some rich deposits on the Orange River, is likely hereafter to send a large quantity. He has ordered flats, drawing only 2 ft., to convey each 40 tons of ore down that river, and a small tug steam-vessel to expedite their passage and tow them back again. His principal mine, Kodas, is within a few miles of the river, and the ore can be conveyed in boats to within seven or eight miles of the sea, where there is said to be fair holding ground in an indentation of the coast, called Alexander Bay. The coast in the neighbourhood of the mines has lately been surveyed by the captain of her Majesty's ship *Proteus*. A discovery of coal has recently been made on the banks of the Berg River, about two days' journey from Cape Town, the quality of which, although inferior on the surface, is said to improve with depth.

WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

E. V. Gardner: Smoke prevention and economy of fuel.—J. B. Dechanet and A. D. Sisco: Metallic tubes and pipes.—W. Bartlett: Ventilators.—J. Edge: Steam engines.—C. B. Hunt and Dr. J. W. Watson: Artificial fuel.—F. Wilhelm: Border padding for steam-boat wheels.—J. Revell: Propelling vessels.—T. Hill: Nails.—G. J. Seufert: Screw-wrenches.—R. M. Ordish: Permanent way.—W. Bull: Axle-bearings and axles.—P. A. le Comte de Fontaine-Moreau: Nails, bolts, rivets, &c.—C. Foster: Railway signals.

WEEKLY LIST OF PATENTS SEALED.

O. Magge, Bourges, Dorset—Portable steam engines. (Ing. vessels.)
J. R. J. Alpha-road, New-croft—Machinery or apparatus for assisting in propelling. A. F. J. Favre, Paris—A new machine for beating precious metals, applicable to leather and to forging.

W. Hunt, Tipton—Utilising certain compounds produced in the process of galvanising iron, and in the application of the same similar compounds to certain useful purposes.

J. Betteley, Liverpool—Construction and manufacture of iron knees, and the application thereof for ship's fastenings.

E. Hogg, Charles-street, Gateshead—Shot and shell.

E. Strong, Carlisle—Removing and replacing the wheels and axles of locomotives, engines and other rolling stock of railways. (Wheels are composed.)

J. Oxley, Beverley—Machinery for making wheels, or the various parts of which

IMPROVEMENTS IN BLOOMING IRON.—In our last Journal we drew attention to the squences patented by Mr. B. H. Thomas, of Kidderminster, Staffordshire. The process of hammering out the cinder and other impurities has long been considered a tedious and expensive operation. By this machine labour is greatly economised, while the iron produced is more effectively bloomed than by the imperfect methods heretofore pursued. A full description of the machinery has already been detailed to our readers, and the working model which we have seen shows, at the same time, the simplicity as well as the practicability of the invention. The density of the iron is increased, while the action is diminished. When its merits are more fully known, there is little doubt but that Mr. B. H. Thomas's invention will be generally used, combining as it does economy with utility, and materially improving the ball subjected to its action, and thereby rendering the bloom more valuable for subsequent operations.

IMPROVEMENTS IN PUDDLING IRON.—Amongst the patents granted will be found one for Mr. James Nasmyth, the celebrated engineer, for an improvement in the process of puddling iron. The invention is stated to relate to an improvement in the process of puddling, whereby the furnace is subjected to violent agitation, and the removal of the carbon from the metal, as well as the sulphur and other impurities, is greatly expedited. These results are obtained by the injection of steam or water beneath the surface of the molten metal, the heat of which resolves the steam or water (immediately it comes in contact with the metal) into its elements, and a slight explosion of the gases ensues, sufficient to upheave the metal, and disturb its surface, so that the impurities are carried off, and the steam or water is applied to the molten metal. The steam or water may be introduced from a boiler or cistern to the furnace by means of a pipe, bent into the form of a rake or puddling rod, and capable of being worked, like the ordinary puddling rod, by the attendant, or, if required, by mechanical means.

IRON MANUFACTURE.—Mons. AMOUREUX-LAFARGE, of Dordogne, France, ironmaster, has just patented a new process for the manufacture of malleable iron with charcoal, by which the cost of production is considerably reduced, although the metal manufactured is of a superior quality. In thirty-six hours the inventor obtained, in his little *fourneau d'épreuve*, 300 kilogrammes (18 cwt.) of iron, at a cost of 20frs. (16s.) the 100 kilogrammes, and in well-formed ingots. Without interruption of the fusion, the apparatus can also be used for heating the whole of the iron produced for the hammering process. We hope to give particulars in an early Journal.

PORTABLE BEDSTEADS.—Messrs. Wren, brothers, of Tottenham-court-road, have recently patented some new portable iron bedsteads, which have been inspected by several military officers. One of them is of very simple construction, and if a supply were sent to the Crimea, it would be the means of saving many valuable lives. When extended it is 6 feet long and 2½ feet wide, and when folded for packing, only measures 2 feet by 2½ feet. It is 2½ in. thick. Messrs. Wren have also invented other bedsteads, of more luxurious description, adapted for the officers, and which, although they occupy a very small space when folded for travelling, form either a bedstead, chair, or sofa. These ingenious inventions are worthy of examination by those interested in the welfare of the army, whether officers or men.

MINING MANAGEMENT, AND THE COST-BOOK SYSTEM.—In the Court of Exchequer, yesterday, an action was brought by Mr. Vial, who was formerly underground captain to the Court Grange Silver-Lead Mining Company, to recover from the defendant, Lord Thomas Charles Pelham Clinton, a shareholder and adventurer in the said mine, the sum of 184. 18s., the amount of three months' wages, at 6s. a month. It appeared that the mine, which is situated in the parish of Lambadon, county of Cardigan, was promoted in 1851, and the defendant bought of Mr. Oliver 21 shares in the mine. The mine, which was conducted on the Cost-book Principle, was carried on for some time; but through negligence and mismanagement, the scheme did not turn out so successfully as was at first anticipated. Accordingly, in July, 1851, the directors wrote to the defendant, stating it was their intention, with the consent of the shareholders, to borrow 3000l., for the purpose of carrying on the mine successfully. To this communication the defendant replied that he consented to the proposal, and acknowledged himself to be a shareholder in the company. Documentary evidence was adduced to show that the servants of the company were appointed by the authority of the directors, but it was contended for the defence that the directors had no authority to do so, as the shareholders in a general meeting, conducted on the Cost-book Principle, which provided that money should be paid beforehand by the directors, and accounts rendered from month to month, so that the shareholders should never incur any responsibilities. By direction of the Judge, the jury returned a verdict for the plaintiff, 184. 18s., with liberty to the defendant to move to enter the verdict for himself, on the point that, as the original authority to employ plaintiff was given by two instead of three directors, whether the subsequent conduct of the defendant amounted to a cure of such defective appointment.

THE IRISH CONSOLS MINING COMPANY'S AFFAIRS came before the Rolls Court in Dublin, on a petition presented by Mr. Quinlan to wind-up the company. From the statement of the counsel it appeared that the company was conducted by Mr. G. M. McCartney, M.P., and other parties who were his friends; the arrangement being that the company were to buy the land from Lane and Perrier, 10,000l., payable by shares in the company, subject to an agreement that 3000 shares were, in reality, to represent the 10,000, and that the other 5000 were to be appropriated between Mr. McCartney and his friends. It further appeared that the disposition of the sum of 30,000l., which constituted the entire capital of the company, was arranged as follows: Messrs. Lane and Perrier, 10,000l.; London, Dublin, and Cork, 15,000l.; reserved, 5000l. It appeared that the contemplated arrangements were carried out, but that the work was carried on but on a limited scale, and that the mines, notwithstanding the favourable reports, turned out worthless and unprofitable. The defendant sought to set aside the arrangement, and to have the land sold, but his impression was that it fell within the Acts of Parliament that had been cited. The object that existed was to realise the funds, and the consideration was how that was best to be done. He (the Master of the Rolls) stated that the resolution passed by the directors was most improper, considering the situation they held in society. The resolution passed by them was contrary to their powers, and appeared to be adopted merely to suit their own purposes. Under colour of such, the grossest fraud might be carried out. Mr. Macnamara's proceeding by way of opposition was perfectly justified; but, under the circumstances, the Master of the Rolls was of opinion that the best course to adopt would be to set aside the 12th section of the Act, by bringing the defaulting directors before the Court, and directing a conditional order to issue, to show cause why the Court should not adjudicate upon the very serious charges of misappropriation which had been made against them.

COLLIERY WORKINGS.—We learn from the *Sunderland Herald*, that a number of men have been discharged at the Wellington Colliery, owing to the water having got into the lower seams of the pit. In consequence of it being supposed that the owners of Wallaced Colliery have exceeded their boundary, and caused the communication of water to the Wellington pit, the owners of the latter have commenced an action for damages against the owners of Wallaced Colliery. On the West, the coal trade is rather dull at present; and in the South Durham district the owners of the inferior description of coal experience increasing difficulty in disposing of their produce. The extraordinary demand existing throughout last year induced many parties to undertake the opening out of seams which could not previously have been worked to profit, and now that a reaction is felt such parties are the first to suffer.

THE COAL TRADE OF LIVERPOOL.—From Messrs. Herbert and Hindley's Monthly Circular, it appears that the total exports of coal from this port, during the month of March last, amounted to 13,235 tons of coal, and 125 tons of coke, the chief portion of which went to Trieste, Constantinople, Smyrna, and Gibraltar. The total shipments from this country to Constantinople, during the three months ending March 31st, were 105,168 tons; to Malta, 39,513 tons; and to Gibraltar, 24,127 tons. The exports to the east and west coasts of South America last month were inconsiderable. —*Liverpool Mercury.*

WHEAL KENDALL MINING COMPANY.—Arrangements have been entered into with Mr. N. Kendall, M.P., for working a copper set under this title, near St. Blazey. The set is parallel with and adjoins Fowey Consols on the south, and contains seven lodes, five of which were opened up by a party of miners, who had not the amount of capital to effectually develop it, and were consequently obliged to surrender it to the proprietor. An adit has been driven several fathoms, from which the lodes intersected can be seen, and contains copper, molybdenum, garnet, pyrites, &c., in such quantities as to warrant large deposits at a shallow depth. A shaft has also been sunk on one of them to a depth of near 30 fms., and found to contain sufficient copper to pay for sinking. The situation is also exceedingly good, being in the junction of granite and hills, with a favourable surface formation, with east and west lodes, and a north underlie; there is also every facility for the transit of its produce and requirements, being within a very short distance of the well-known shipping ports, Fowey and Falmouth. Taking these things into consideration, together with the practical qualifications and bona fide character of the promoters, there appears little doubt that the adventurers may fairly expect a good return for their outlay.

The Garden Exhibition of the Horticultural Society of London will take place, by permission of Her Majesty's Commissioners for the Exhibition of 1851, in the gardens behind Gore and Grove Houses, Kensington, on Wednesday, the 16th inst. An advertisement will be found in another column.

CORNISH STEAM-ENGINES.

Abstract from *Brown's Cornish Engines Reporter*, from 20th March to 31st April.

PUMPING ENGINES.	
Number reported	34
Average load per square inch on the piston, in lbs.	15-1
Average number of strokes per minute	8-5
Gallons of water drawn per minute	4092
Average duty of 15 engines, being million lbs. lifted 1 ft. high by the consumption of 1 cwt. of coals	68-8
Actual horse-power employed per minute	1118-1
Average consumption of coals per horse-power per hour, in lbs.	3-3

ROTARY ENGINES.—WHIMS.	
Number reported	17
Number of kibbles drawn	41,358
Average depth of drawing, in fms.	133-6
Average number of horse-whim kibbles drawn the average depth by consuming 1 cwt. of coals	48-7
Average duty of 11 engines, as above	17-2

STAMPS.	
Number reported	8
Average number of strokes per minute	9-0
Average duty of three engines, as above	53-1
Actual horse-power employed per minute	108-2

PUMPING ENGINES DOING HIGHEST DUTY.	
Far Consols, 80 in. single	Million lbs. 97-4
Fowey Consols, 80 in. single	96-5
Great Polgooth, 80 in. single	94-9
Far Consols, 72 and 36 in. Sims' combined	70-3
Pembroke and East Crinnis, 70 in. single	70-3
West Fowey Consols, 60 in. single	73-3
Great Polgooth, 67 in. single	73-3

WHIM ENGINES.	
Far Consols, 22 in. double	Million lbs. 39-5
Far Consols, 24 and 13 in. Sims' combined	31-1
Great Polgooth, 22 in. double	20-3
Far Consols, 24 in. single	19-4

STAMPING ENGINES.	
Wheal Ury, 36 in. single	Million lbs. 55-6
Great Polgooth, 35 in. double	53-2
South Caradon, 36 in. single	48-5

RAILWAY TRAFFIC RETURNS.

ENGLAND.—Subjoined are the traffic returns of the various English lines for the last week:—

	1855.	1854.
London and North-Western	256,170	253,074
Lancashire and Yorkshire	19,181	18,556
London and South-Western	14,009	12,220
London and Brighton	12,524	11,845
Midland	25,960	24,909
Great Western	26,738	26,571
North-Eastern	30,559	28,076
Great Northern	16,055	15,560
Great Northern	20,473	18,043
Chester and Holyhead	4,851	4,390
Manchester, Sheffield, and Lincolnshire	9,319	7,731
East Anglian	864	840
Eastern Counties, Norfolk, and Eastern Union	22,824	21,109
Bristol and Exeter	6,285	6,054
Exeter and Crediton	172	121
Shropshire Union	668	668
Birkenhead, Lancashire, and Cheshire Junction	2,365	2,302
Manchester and South Junction	690	719
Newcastle and Carlisle	3,269	3,069
East Lancashire	5,390	4,737
Oxford and Worcester	3,079	2,608
London and Blackwall	1,385	1,246
London, Tilbury, and Southend	823	—

These figures show the following aggregate results:—

	Receipts.	Miles open.	Average per mile.
1855	£283,588	4396	£64 10 0
1854	258,246	4265	60 11 0

This comparison is highly favourable to the present season. The railway traffic receipts are evidently increasing.

SCOTLAND.—The returns on Scotch lines are:—

	1855.	1854.
Aberdeen	£ 2,114	£1,872
Caledonian	10,994	10,694
North British	4,848	4,514
Edinburgh and Glasgow	5,277	5,463
Glasgow and South Western	3,596	3,564
Scottish Central	2,437	2,311
Dundee and Perth	979	842
Great North of Scotland	796	—

Total

	1855.	1854.
Belfast and Ballymena	£ 826	£ 813
Belfast and County Down	262	256
Cork and Brandon	255	177
Dublin and Belfast Junction	1,000	954
Great Southern and Western	6,943	6,669
Dublin and Wicklow	276	—
Londonderry and Enniskillen	611	601
Great Western of Ireland	283	283
Dublin and Drogheda	1,183	1,263
Cork, Blackrock, and Passage	172	228
Waterford and Kilkenny	244	157

Total

RAILWAY TRAFFIC.—The traffic returns of railways in the United Kingdom, for the week ending April 23, amounted to 375,080l., and for the corresponding week of 1854 to 344,755l., showing an increase of 30,325l. The gross receipts of the eight railways having their termini in the metropolis, amounted for the week ending as above to 170,078l., and for the corresponding week of last year to 153,548l., showing an increase of 16,530l.

The increase on the Eastern Counties Railway amounted to 17,144l.; on the Great Northern to 3450l.; on the Great Western to 8677l.; on the London and North-Western to 3068l.; on the London and Blackwall to 391l.; on the London, Brighton, and South Coast to 679l.; on the London and South-Western to 1769l.; and on the South-Eastern to 6417l.; total, 16,535l.

The receipts on the other lines in the United Kingdom amounted to 203,002l., and for the corresponding period of 1854 to 191,212l., showing an increase of 13,790l. In the receipts of those lines, which, added to the increase on the metropolitan lines, makes the total increase 30,325l., as compared with the corresponding week of 1854.

The Great Indian Peninsula Railway Company have appointed Mr. John Kershaw their locomotive superintendent. Mr. Kershaw was formerly connected with the locomotive department of the South-Western, South-Eastern, and Eastern Counties Railways, and subsequently locomotive manager of the Midland and Great Western of Ireland. This gentleman's lengthened experience in the working of railways may be considered as fully justifying the propriety of the selection thus made by the directors of the Great Indian Peninsula Railway.

By the last advices, we learn that the Panama Railway continued in good working condition, and trains run daily from the Atlantic to the Pacific in less than three hours. The goods traffic was increasing very much.

THE ELECTRIC TELEGRAPH AS APPLIED TO RAILWAYS.—On the occasion of a night accident on the Paris and Boulogne Railway, a correspondent of the *Times* writes that—"The guard in charge of the train descended from his carriage, taking with him a small box, containing, I imagine, a battery, which he at once attached to the telegraph wire at the side of the railway where a post occurred. He was thus enabled to communicate by telegraph to the station-master at Abbeville, informing him of the 'break down,' and requesting to have another engine sent immediately, to enable him to proceed with the train. He promptly received an answer from the station-master, and shortly after an engine arrived. I am not aware that this system of establishing a temporary telegraphic station has ever been tried in England, but I am certain that it is not in general use. Would not so simple and efficient a means of communication in case of accident, or emergency be worth the consideration of the various directors of English railways?"

THE IRON TRADE.—"Ironmaster," in the *Worcester Journal* of this day, says—"I am sorry to say that there

HER MAJESTY'S COMMISSIONERS FOR THE EXHIBITION OF 1851 having granted the use of the gardens behind Gore House and Grove House to the **HORTICULTURAL SOCIETY**, for the **GARDEN EXHIBITION** on Wednesday, the 16th May.—Notice is hereby given, that Tickets, at 5s. each, are issuing at 21, Regent-street, Hill Terrace, the 15th May. On the day of exhibition, tickets will only be procurable at Gore House, and at the rate of 7s. 6d. each.

GEELONG AND MELBOURNE RAILWAY COMPANY.

Incorporated by an Act of the Victoria Legislature, 8th February, 1853.
Capital £350,000, in 17,500 shares of £20 each.
Bearing a minimum interest of 5 per cent. per annum.
Guaranteed by the Colonial Government for 21 years, and payable half-yearly, viz, on 30th April and 30th October, in the colony and in London.

Appointed by **JAMES BUCHANAN HUTTON, Esq., J.P.,** President.
Appointed by **GEORGE BOARD, Esq.,** Vice-President.
Appointed by **W. G. McKELLAR, Esq., J.P.,** Immigration Agent.
Appointed by **CHARLES EDWARD STRUTT, Esq., J.P.,** Collector of Customs.
Appointed by **JOHN GUTHRIE, Esq., J.P.,** Collector of Customs.

MANAGER—S. J. Cooke, Esq., 36, Cannon-st., late Treasurer to the Colonial Government.
AGENTS—Messrs. Larnach and Walker, 37, Cannon-street.
ENGINEERS—Messrs. Henry Gifford, Esq., Bristol; Daniel Gooch, Esq., G.E., Great Western Railway.

SOLICITORS—Messrs. Goodwin and Co., 3, Lancaster-place, Strand.
BANKERS—London Joint-Stock Bank; Bank of New South Wales.

1. The Colonial Government having originally guaranteed interest at 5 per cent. upon £200,000 only of the subscribed capital of this company, the 10,000 shares representing that portion were allotted shortly after the issue of their first prospectus in the colony.

2. The rapid progress of the works towards completion rendering it desirable to procure the whole of the plant and rolling stock from England without delay, the directors found it necessary to apply for an extension of the guarantee to the entire capital of £350,000, which the Government has accordingly conceded.

3. With a view, therefore, of providing funds in London for the residue of the materials, without incurring the large extra charges for exchange, the directors of the company have placed a limited number of shares for allotment, fully paid up, through their London agency.

4. The immensely increased and increasing population of Geelong (now about 50,000) and Melbourne (about 100,000), the large township of Williamstown, by which the line passes, and the Hobson's Bay shipping trade, render this undertaking of the highest importance, offering extraordinary and immediate advantages to shareholders.

5. Free and unconditional grants of land for the line and intermediate stations have been made by Government to the company, including 13 acres in the centre of the rising corporate town of Geelong for the terminus, with harbour frontages for the pier and wharves, the total value of which is not less than £120,000.

6. The electric telegraph has been laid by the Government within the company's fences, from Melbourne to Geelong, and is now in active operation.

7. The pier, 1000 ft. in length, and capable of receiving ships of 2000 to 5000 tons burden alongside, being already completed, vessels of all classes are now discharged there with unexampled facility and dispatch, subject to the dues of the company.

8. Information has been lately received that the harbour branch and a portion of the line will be open for traffic in June next; and, as all the contracts have been taken under term, it is fully expected that the line will be ready for working this year.

9. The entire cost of formation, including earthworks, bridges, stations, and permanent way, together with rolling stock, tanks, cranes, and other plant, sufficient for the effective working of the line, will not exceed £10,000 per mile.

10. A traffic statement has been carefully prepared in the colony, taken from Customs' returns and other data, by which estimate a dividend of 25 per cent. (as limited by the Act) is confidently expected, leaving still a surplus towards a reserve fund.

11. The first allotment of shares reserved for this market has been made, and the sealed certificates delivered to the allottees.

Applications are now invited for the residue of such shares of £20 each, paid up, at not less than par; the interest of 5 per cent. taking effect from the date of payment and delivery of the sealed certificates of the company.

FORM OF APPLICATION FOR SHARES.
To Messrs. Larnach and Walker, 37, Cannon-street, London.

GENTLEMEN,—I request that you will allot to me, guaranteed shares of £20 each in the Geelong and Melbourne Railway Company, at and I hereby undertake to accept them, or a less number, and to pay for the same in full, on or before the 1st day of June next ensuing, receiving in exchange the share certificates bearing the common seal of the company.

Name
Address
Profession or business
Usual signature

Prospectuses may be obtained, registers of contracts, specifications, plans, and sections of the line, can be seen, and all further information will be given, on application at the office of the company, S. J. COOKE, Manager.

Geelong and Melbourne Railway Company.
Office, 36 and 37, Cannon-street, London, May 1, 1855.

SOUTH AUSTRALIAN COPPER MINING COMPANY.—FINAL NOTICE.

NOTICE is hereby given, that the HOLDERS of SCRIP CERTIFICATES, who have not already brought in the same for registration, pursuant to the provisions of the Act, under which this company is established, are hereby required to deposit such SCRIP CERTIFICATES with the secretary for REGISTRATION on or before the 31st day of May inst., otherwise they will be permanently excluded from all right and benefit in the undertaking.

By order of the Committee of Management, W. L. WEBB, Sec.
Dated this 21st day of May, 1855, 11, New Broad-street, London.

N.B. In return for such certificates now transferable, certificates will be issued.

FORT BOWEN GOLD AND SILVER MINING COMPANY.

NOTICE is hereby given, that the ANNUAL GENERAL MEETING of the shareholders of this company will be HELD at the offices of the company, 11, New Broad-street, in the City of London, on Monday, the 14th day of May inst., at Half-past One o'clock in the afternoon precisely.

By order of the Board, W. L. WEBB, Sec.
11, New Broad-street, May 3, 1855.

AQUA FRIA GOLD MINING COMPANY.—At an EXTRAORDINARY GENERAL MEETING of the shareholders of the above company, held at the City of London Tavern this day, the directors reported that the subscriptions received amounted only to £5000; and that unless measures were taken to increase that amount to £10,000, the minimum sum stated at the last meeting to be required, the company must be wound up.

It was then proposed and carried unanimously:—
That, in order to induce shareholders to make the requisite advance, a bonus of £20 per cent. payable on redemption of the principal, should be secured to the subscribers, in addition to the 15 per cent. interest already offered. The meeting to be adjourned to Monday, the 7th May next, at the company's offices.

Scrip and shareholders are, therefore, requested to signify to the secretary, before the 7th May, what amount of such debentures they are disposed to take. It will be understood that shareholders may tender for any amount they please; but in the event of the aggregate exceeding £15,000, the sum authorised to be raised, the subscriptions will be reduced to the limit originally proposed, viz., £1 for every four shares held by them.

By order, WILLIAM J. VIAN, Sec.
Office, 3, Old Broad-street, London, April 30, 1855.

ANGLO-CALIFORNIA GOLD MINING COMPANY.

The shareholders are informed that FUNDS SUFFICIENT to PAY OFF the DEBT with which the property of this company in California was charged, were REMITTED by the last mail.

By order, GEORGE F. GOODMAN, Sec.
11, Adam-street, Adelphi, May 1, 1855.

CALIFORNIA LAND CLAIMS.

IMPORTANT DECISIONS BY THE UNITED STATES' SUPREME COURT.
Washington, April 4, 1855.

In the Case of the UNITED STATES (Appellants) v. ARCHIBALD A. RITCHIE, an Appeal from a Decree of the District Court for the Northern District of California, Judge NELSON recently delivered the Opinion of the United States' Supreme Court.

In the Case of JOHN CHARLES FREMONT (Appellant) v. the UNITED STATES, an Appeal from the District Court of the United States for the Northern District of California, Chief-Justice TANEY delivered the Opinion of the United States' Supreme Court; in substance as follows:—

The Court bestowed much attention upon this case, as many claims to land in California depend upon the same principles, and will, in effect, be decided by the judgment of the Court in this case. A preliminary question, as to the jurisdiction of the District Court, having been decided in the foregoing case, the Court proceeded to examine the validity of the claim upon this appeal.

After a lengthy disquisition upon the precise rights of grants of land in Louisiana and Florida, when those territories were first ceded to the United States, and how far the proceedings in those cases would apply to such as that now under consideration, the judge comes to the question of the validity of the grant to Alvarado of the tract of land known by the name of Mariposa, which was the point in controversy, and arrives at the conclusion that the grant to Alvarado gave him a vested interest in the quantity of land therein specified, and that said interest was not forfeited by a failure to comply with certain conditions, as to the survey and settlement attached to the grant, the state of the country from wild Indians rendering a compliance with the conditions quite impracticable. That Col. Fremont's purchase of the lands in 1847 was perfectly consistent with his rights and duties as an American officer and citizen, the country in which he made the purchase being at the time subject to the authority and dominion of the United States; and that the fact that he was not a citizen of Mexico could in no way impair the validity of the conveyance to him. That the subsequent discovery of gold mines on the land had nothing to do with the title; and that the survey must now be made under the authority of the United States, in the form and divisions prescribed by law for surveys in California, embracing the entire grant in one tract. Upon the whole, it is the opinion of the Court that the claim of the petitioner is valid, and ought to be confirmed. The Decree of the District Court must, therefore, be reversed, and the case remanded, with directions to the District Court to enter a decree conformably to this opinion.

Col. Fremont's claim is thus recognised by the Supreme Court.

MINES, &c.—MANAGERS AND PURSERS OF MINES, and

others, requiring PLANS, SECTIONS, CIRCULARS, NOTICES OF TRANSFER OF SHARES, RECEIPTS OF TRANSFERS OF SHARES, COMMON RECEIPTS, ORDER BOOKS FOR MINES, or any species of SURVEYING or LITHOGRAPHIC WORK, will do well to apply to R. SYMONS and SON, Surveyors and Lithographers, Quay, Truro.

ROYAL PANOPTICON, LEICESTER SQUARE.

WAR IN THE CHINA, Monday, Wednesday, Friday, at 9.10; Tuesday, Thursday, Saturday, at 4.10.—LIFE IN POMPEII, Monday, Wednesday, Friday, at 4.10; Tuesday, Thursday, Saturday, at 9.10.—DAILY: THE GRAND ORGAN, at 12.45; 3.45; 6.45; 9.45; the PYRENEAN MOUNTAINS, at 1.40; 5.40; the GRAND ELECTRICAL MACHINE, at 3.40; 5.40; the LUMINOUS and CHROMATIC PICTURE, at 4.55; 9.55.—MODEL OF ANCIENT JERUSALEM EXPLAINED between 12 and 2.—LECTURES and DEMONSTRATIONS as usual.—Doors open: Morning, 12 to 5; Evening, 7 to 10. Admission, 1s.; Children and Schools half-price.

BRITANNIA MINE, NORTH MOLTON, DEVON.—TO MINING COMPANIES AND OTHERS.

Notice is hereby given, that the WHOLE of the excellent PLANT and MACHINERY, now on the above MINE, will be SOLD, BY AUCTION, on Thursday, the 15th day inst., at One o'clock precisely, upon the premises. The list comprises a NEW WATER-WHEEL, 50 ft. diameter, and 5 ft. breast; 100 ft. of connecting rods; balance-bob; 20 fms. shaft rods, with strapping plates; 28 fms. of 9 in. pump; windrose, working-barrel, and doorknees; also, a water-wheel, 25 ft. diameter; capstan, shears, and rope; a 6-head iron stamping mill; ladders. Superior CRUSHING and AMALGAMATING MACHINERY (designed by Mr. John Mitchell, and constructed under the superintendence of Captain Moorsom), comprising edge runners, working in iron pans; revolving barrels; and a quantity of shafting, gearing, driving bands, &c.; together with blacksmith's shop, fittings, and tools, and numerous mining implements and materials.

May be viewed by application to Capt. THOMAS, on the premises; and further particulars obtained of the secretary, at the offices of the company; and of Mr. F. Dones, auctioneer, North Molton, Devon.

By order, P. F. NURSEY, Sec. and Purser.
16, Barge-yard Chambers, Bucklersbury, London, May 4, 1855.

MR. GEO. SEALY WILL SELL, BY PUBLIC AUCTION, on

Monday, the 14th day of May, 1855, at WEST WHEAL TREASURY, in the parish of Gwinnar, by Eleven o'clock in the forenoon, the following excellent MINING MATERIALS:—viz., an excellent 70 in. cylinder STEAM PUMPING ENGINE, with 2 boilers 26 tons; 22 in. double steam whelm, with boiler, complete; 19 ft. 12 in. pump; 3 ft. 11 in. pump; 1 ft. 7 in. 10 in. pump; 1 ft. 12 in. doorknee; 12 in. clock seat-piece; 1 1/2 in. clock seat-piece; 1 long tube for a "dry;" an 8 in. new capstan-rope; a quantity of flat-rod iron, round and square; a quantity of sheaves and flat-rods; 80 fms. 9 in. and other chain; mandril; smiths' horse; drop screws; tram wagon and wheels; iron-stave ladders; bucket prongs; clacks; valves and brasses; a large quantity of staples and glands, of various sizes; rod pins; flange and stuffing-box bolts; pump and door rings; tram iron; forgotten pins; bob strap eyes; screw stocks and plates; set-offs; smiths, miners, and dressing tools; several useful lots of round and square iron; collar ladders; wood matchings; pulley stands; wood sheds; jiggling machines and hatches; cisterns; 2 smiths' bellows; chests; hand-barrows; shaft doors; carpenters' bench; winze rope; sieves; bricks; shovels; shaft tackles; a large quantity of balk, and other useful timber, for mining and other purposes.

N.B. West Wheal Treasury is situated three miles from the wharves at Hayle. Marazion, May 1, 1855.

MR. GEO. SEALY begs to announce that he is instructed to OFFER

FOR SALE, in the early part of June next, at SOUTH SPEED, close to the Port Hayle, a superior PUMPING and STAMPING ENGINE, together with the PITWORK, &c., of which full particulars will appear in future advertisements; all nearly new.—Marazion, May 1, 1855.

WEST UNITED HILLS MINE MATERIALS FOR SALE.

MR. GREENWOOD has been favoured with instructions to SELL, BY AUCTION, on Tuesday, the 15th day of May, at Eleven o'clock in the forenoon precisely, at WEST UNITED HILLS MINE, in the parish of Illogan, the following valuable MATERIALS:—viz., 36 in. cylinder STEAM ENGINE, with first piece of rod, complete; boiler about 9 tons; capstan and shears; 70 fms. 3 in. capstan-chain; horse whelm, with oak axle; shaft tackle and stands; whelm-rope.

1 ft. 10 in. windrose.
1 ft. 10 in. doorknee.
1 ft. 10 in. working-barrel.
4 ft. 11 in. pump.
2 ft. 11 in. pump.
2 ft. 11 in. pump.

40 fms. iron-stave ladders; 2 underground cisterns; 4 pair 6 in. rod-plates; 9 in. staples and glands; 30 fms. 1 1/4 in. bucket rods; 30 fms. 8 in. connection rods; 3 10 in. buckets; 12 fms. 9 in. ladders; 1 4 ft. 11 in. wood matching; windlasses; wheelbarrows; carpenters' benches, and miners' chests; several fathoms 7-16 in. chain; double block; pair levels; 36 in. smiths' bellows; anvil; vice; smiths and miners' tools; a large beam; beam and scales; weights; screw stock; taps and plates; bolts and bars; rod pins; wrought and cast-iron; lot new Norway balk; lot old timber; lot planer; and other ropes; carpenter's bench; water-barrel; saw-pit; and window; powder; hilt; nails; &c.; together with the ACCOUNT-HOUSE FURNITURE, comprising an excellent apparatus, 2 kitchen tables, 6 chairs, bedstead and bedding, form, knives and forks, glasses, earthenware, saucepans, tea kettle, window blinds, and sundry other articles.

The materials are in excellent condition, the whole being nearly new; the auctioneer would recommend them to all purchasers.—For viewing the same, application to be made to Capt. JOHN BURTON, Helston; or on the mine.

Mr. Greenwood having been appointed to sell the materials and wind-up the concern, all persons having any claims on the mine will forward the same to him, for the purpose of such claims being paid.—Truro, April 27, 1855.

TO RAILWAY CONTRACTORS, AND MANUFACTURERS OF WOOD KEYS AND TREASURES FOR RAILS AND CHAIRS AND SHIPBUILDING, ENGINEERS, IRONFOUNDERS, BOILER MAKERS, AND OTHERS.

MR. SAMUEL BLOORE, Jun., has received instructions from the proprietor (in consequence of the room being required for extending his railway plant and wagon works) to SELL, BY AUCTION, without reserve, on Monday, the 21st day of May, and following days, at the VULCAN IRONFOUNDRY, ENGINEERING, and MILLER WORKS, BIRMINGHAM, a very complete and valuable SET OF MACHINERY FOR MAKING THE WOOD KEYS and TREASURES FOR RAILS, WAYS and SHIPBUILDING, including circular saw tables; valuable shaping machine, for making wood keys, with slide rest, &c.; a powerful self-acting railway key compressing machine, with 30 sets of various patterns and sizes of compressing dies, and wrought-iron forcing tools for ditto; a very powerful rolling machine, for compressing ships' trenails; and a valuable double-action trapping machine, for turning wood dowels and long trenails, with brass double self-acting turning tool to ditto; a strong 10 ft. cast-iron bed lathe, with turning lathe heads to ditto; and several lathes with slide rests for trenails, &c.; a very powerful punching and shearing machine, with tools, will punch 1 in. holes in 1/2 in. plate; a valuable vertical punching and shearing machine, new, will punch 1 in. holes in 1/2 in. plate; a second-hand ditto; an excellent plate bending machine; eight valuable new and second-hand steam-engines, varying from 3 to 50-horse power; a great number of sets of patterns for beams, direct-acting, and horizontal steam-engines; also, a large quantity of valuable machine patterns, cranes, spur and bevil wheels, saw mills, sugar mills, water-wheels, and strap and rope pulleys, and weighing machines; 20 valuable and most complete self-acting screw-cutting and other lathes, with centres from 6 in. to 33 in. high; planing, slotting, shaping, drilling, screwing, and other machines; two wharf cranes; six crab cranes; three circular saw benches; valuable mortising and tenoning machines, and boring machines; 100,000 new bricks; 10,000 ft. seasoned pine and other boards and planks; register and oven grates; steam stoves, ash grates, and furnaces; saw weights; boiler doors and frames; boiler carriage; timber carriage; carts; implements; and an infinity of other useful property.

For further particulars, see catalogues, which will be ready in a few days.

PRELIMINARY ANNOUNCEMENT.

IMPORTANT SALE OF ENGINE WORK, MACHINERY, TOOLS, UTENSILS, and MATERIALS, PIG IRON, BAR IRON, SHIP PLATES, SCRAP IRON, &c., at the BEDLINGTON IRONWORKS, NORTHUMBERLAND.

MR. GEORGE HARDCASTLE is instructed to prepare for peremptory and unreserved SALE, BY PUBLIC AUCTION, the extensive and most valuable PLANT OF MOVABLE MACHINERY and GENERAL STOCK IN TRADE, on the premises.

The sale will take place early this month, and particulars will be furnished in catalogues and further advertisements.

Information will be afforded by the auctioneer, on application at the Sunderland Sale Offices; Messrs. GRIFFITH and CROFTON, solicitors; or to Messrs. ALLINSON and GILLESPIE, accountants, Royal Arcade, Newcastle-on-Tyne.

Newcastle-on-Tyne, May 1, 1855.

INCUMBERED ESTATES COURT, IRELAND.

JOHN GARRATT, Esq., M.P., Owner.

ON PART OF THE LANDS OF BALLYKROGHAN, in the barony of Ida, and county of Kilkenny, being Lot 7 in the rental for sale, by auction, by the Commissioners on the 22d May, 1855. A LODGE OF SILVER-LEAD ORE has been met with, specimens of which, taken from the surface, have been submitted to Prof. Sullivan, of the Irish Industrial Museum, and have been pronounced by him to be of a very promising kind. The lodge occurs in a limestone quarry, within about 30 perches of the Kilkenny Station of the Waterford and Kilkenny Railway, and within about four miles by railway of the City of Waterford. The railway station is on part of the lands.

ON THE LANDS OF BALLYKROGHAN, in the barony of Knocktopher, and county Kilkenny, distant about three miles from the above lands. MANGANESE and INDICATIONS OF IRON have been found, and pronounced as such by Prof. Sullivan as being of a promising kind. These lands cover an area of about two square miles, and are within a mile of the Mullinahon Station of the Waterford and Kilkenny Railway. These lands are included in Lots 5 and 6 of the rental.

The lands on which the above ore and iron are held are free-lease, and are conveniently situated, being quite close to the sea-port City of Waterford, and possessing all the facilities of railway communication. They will be found well worth the attention of capitalists.

For rentals, reports, and all further particulars, apply at the Court of the Commissioners, 14, Henrietta-street, Dublin; Messrs. PAICE and BOLTON, solicitors, New-square, Lincoln's Inn; and MURDOCK GARRATT, solicitor, having carriage of the proceedings, 32, Sackville-street, Dublin.

TO BE SOLD, BY PRIVATE CONTRACT, A NEWLY-ERECTED

and FREEHOLD FORGE and MILL, situate in the Forest of Dean, in the county of Gloucester, capable of manufacturing from 50 to 100 tons per week.

The FORGE comprises puddling furnaces, with an excellent hammer, and a 16 in. train of bar and billet rolls, with pinions and frames, all complete.

The MILL has two ball furnaces, a 10 in. train of merchant rolls, and one of 8 in. for guide iron and wire rods, with three speeds, to suit the respective sizes of iron.

Applications, from principals only, to be made to Mr. DAVID NORTH, of Monmouth Ironworks, Wolverhampton; and to Mr. JAS. BAXON, of Cinderford, near Newnham, Gloucestershire.

MINING INVESTMENT.—WEST ABERFROWD.—TO BE

SOLD, a very valuable MINE, situate in the heart of the best mining district in Cardiganshire. A shallow adit level has been extended for many fathoms, in the bottom of which there is a good course of ore now to be seen, and some tons of ore on the surface broken therefrom. A deep adit level has been commenced, and driven on the course of the lode for 20 fms., the lode yielding lead ore. To continue this level to the course of lead ore discovered in the shallow adit level was the object of the present company; but a great portion of the mine being held by working miners in the adjacent neighbourhood, whose means are not sufficient to carry on the trial with spirit, is the only cause for parting with the property.—To inspect, and for further particulars, apply to the agent, PHILIP NICHOLLS, Goginan, Aberystwyth.

P.S. There is every facility for the working of water machinery, carriage light, and dues moderate.—March 5, 1855.

WANTED.—A NEW or good SECOND-HAND HIGH-PRESSURE STEAM-ENGINE, of from 12 to 20-horse power.—Write, stating terms, to W. B. BLAKEWAY, Hanwood Mills, Shrewsbury.

ENGINES FOR SALE.—28 in. cylinder PUMPING ENGINE

with boiler 9 tons; 24 in. STAMPING, CRUSHING, or WINDING ENGINE, with boiler 8 tons; TO BE SOLD, with or without boilers; all nearly new.—Apply to GEO. SEALY, auctioneer, Marazion.—Marazion, Jan. 10, 1855.

STEAM-ENGINE FOR SALE.—FOR SALE, a 60 in. cylinder

STEAM-ENGINE, 10 ft. by 9 ft. stroke, nearly new, with or without boiler. The water used for feed and condensing from the granite rock.—For particulars and sale, apply to Mr. TREWEEK, Uny Lelant, near Hayle, Cornwall.

STEAM-ENGINES ON SALE, of 4, 8, 12, and 20-horse power,

finished. Also, an 8 in. SLIDE and SCREW-CUTTING LATHE, bed 18 in. long, with change wheels, &c.—Apply to JOHN ELLIS, Jun., Brothers, engineers, and manufacturers of steam-sawing machinery, 15, Backwater-street, Manchester.

SPLENDID 20-horse HIGH-PRESSURE ENGINE and BOILER,

by the eminent Messrs. Fairbairn and Sons, diameter of cylinder, 17 in.; stroke, 2 ft. 6 in.; wrought-iron shaft, 10 in. diameter, and 7 in. in journals; fly-wheel in 26 ft. long; 6 ft. 6 in. diameter, and 10 in. in flange; high-pressure boiler, with pedastals, bolt, pipes, &c., complete.—WHEATLEY KIRK, 27, Dale-street, Liverpool; and Cross-street Chambers, Manchester.

STEAM-ENGINES AND STEAM BOILERS TO BE SOLD.

ONE NEW 12-horse power DONKEY PUMPING ENGINE, with double beam pump.
ONE NEW 12-horse power BEAM ENGINE.
ONE NEW 45-horse power COMPOUND ENGINE, with high and low-pressure cylinders.

ONE SECOND-HAND 12-horse power BEAM CONDENSING ENGINE.
ONE SECOND-HAND 40-horse power COMPOUND, PORTABLE MARINE ENGINE, with high and low-pressure cylinders.

ONE NEW 50-horse power VERTICAL TUBULAR BOILER, suited for a steam-boat or land engine.
ONE SECOND-HAND 16-horse power CYLINDRICAL BOILER, with thorough flue and furnace.

TWO SECOND-HAND MARINE TUBULAR BOILERS, of 50-horse power each. Apply to THOS. GREENBOSCH and Co., Drogheda Ironworks, Drogheda.

COAL AND IRONSTONE.—TO BE SOLD, the LEASE of the

COAL and IRONSTONE under an extensive manor in the county of Glamorgan.—For particulars, apply to Mr. CHARLES WILKIN, solicitor, 10, Tottenham-yard, London.

ELIGIBLE IRONWORKS TO BE DISPOSED OF.—TO BE

SOLD, OR LET, the UNEXPIRED TERM of an IRONWORKS in CUMBERLAND, comprising about 14 acres, held under a lease, at a nominal rent, having six years to run, consisting of a blast furnace, with blowing engine and hot blast apparatus; forges and mills for rolling bars, sheets, and boiler plates; and a tin-plate mill, capable of producing 400 boxes per week; also, 11 workmen's and two excellent managers' houses. The forges have the advantage of both steam and water power; and the whole work is most eligible situated close to a railway, a branch of which goes into the work, and with every facility for the cheap supply of agricultural ironstone, coal, and hematite ore. The above is in excellent condition, and may be immediately put to work at a very small expense.

Also, together or separately, a FREEHOLD FORGE and ROLLING MILL, in the immediate neighbourhood of the above, consisting of a complete set of rolls for puddled and finished iron, Shingler's hammer, shears, &c., worked by a steam-engine, and capable of producing 50 to 70 tons of bars weekly.

Apply to Messrs. McEwan and AULD, accountants, Glasgow; Messrs. Wm. Biss and Co., London or Glasgow; or PETER CAMERON, Esq., Whitehaven.

TO RAILWAY COMPANIES, IRONMASTERS, AND CAP-

ITALISTS.—TO BE SOLD, BY PRIVATE CONTRACT, the RODRIDGE COLLIERY, situated midway between Ferry Hill and Hartlepool, with its extensive ROYALTIES and PLANT. The coal from the Harrey seam, 4 ft. thick, has been manufactured by Mr. James Morrison into coke, which is of a first class description for locomotive purposes. The property contains a valuable STEAM COAL SEAM, laying over a large acreage. Reports on the capabilities of the colliery, made by Mr. T. E. Forster (of Newcastle-on-Tyne) and Mr. Armstrong (of Wingate Grange), can be seen on application to Mr. EDWARD TURNBULL, solicitor, Hartlepool; and Mr. M. SEYMOUR, Rodridge House, Ferry Hill.

LAND AND MINING SURVEYING.—A PARTY of considerable

experience is about to BEGIN BUSINESS as a LAND AND MINING SURVEYOR. Is open to engagements, with companies or others connected with mining operations, to make and fill up plans, &c.; and hopes, by accuracy, strict attention to business, and moderate charges, to merit a share of public support.—References as to character and capabilities to be made to Mr. GEORGE, mining engineer, Shandwick-place, and to Mr. HOARE, civil engineer, St. Andrew-square, Edinburgh.

CONTRACTORS' RAILS WANTED.—WANTED TO PUR-

CHASE, about 40 tons of OLD RAILS, from 35 to 40 lbs. to the yard.—Address, with particulars, and quoting lowest cash price, to Messrs. FLETCHER, Son, and Co., Willenhall, Staffordshire.

RED DRAGON SILVER-LEAD MINE.—Notice is hereby given,

that a SPECIAL GENERAL MEETING of the adventurers in this mine will TAKE PLACE at the London Tavern on Monday, the 21st of May, for the following purposes:—To receive and consider a report from the committee of management; to consider the expediency of making a call upon the present shares of the mine, or of increasing the number of the same; and on no other business. The chair will be taken at Twelve o'clock precisely.—May 1, 1855. E. STEPHENSON, Chairman.

RED DRAGON MINE.—At the Special Meeting of the adventurers

in this mine, to be held on the 21st inst., the shareholders will ELECT a PURSER to the mine, who will be expected to provide an office for the use of the committee.—Parties qualified may, ad interim, address their applications, with salary expected, &c., to Mr. E. STEPHENSON, 53, Lime-street.—May 1, 1855.

POLTIMORE MINING COMPANY.—Notice is hereby given, that

at a SPECIAL GENERAL MEETING, held on April 25th last, it was resolved that the shareholders be called upon to contribute 1s. per share for the necessary expenses of the mine, on or before the 9th day of June next, and further that the sum so contributed be not appropriated for any purpose till sanctioned by a general meeting.

IMPORTANT TO LEAD SMELTERS.—THE INVENTOR IS PREPARED TO CONSTRUCT, upon liberal terms, a DOUBLE REVERBERATORY FURNACE, capable of making a SAVING of 50 per cent. FUEL over that of the best constructed furnaces in Europe; at the same time guaranteeing the general loss in smelting not to exceed 5 per cent.

The inventor, after 20 years' experience, both in England and various parts of the Continent, has discovered the method, in the regular course of smelting, and without any extra cost, of separating antimony from a certain class of silvery-lead ore, thereby rendering the lead free of all impurities, and, at the same time, the antimony in a marketable state. All letters to be addressed to "C. J. R." Mining Journal office, 26, Fleet-street, London. A perfect model is to be seen on application to the inventor.

TO ARCHITECTS, SLATE MERCHANTS, BUILDERS, AND OTHERS.—THE DIRECTORS OF THE MACHINO SLATE AND SLAB COMPANY having completed the arrangements for the REMOVAL of their SHIPPING PORT to CONWAY, for the convenience of vessels unable to lower their masts to pass the tubular bridge, are now PREPARED TO RECEIVE ORDERS for their justly celebrated SLABS and SLATES, from the Ffestiniog vein, which for beauty of colour and durability are unequalled.

The slabs have been largely used in the construction of houses for Australia; and, from the facility with which they are erected and removed, are well adapted for portable huts for men and horses at the proposed camps in England and Ireland. All applications to be addressed to Mr. T. H. WHELAN, the resident director, at the company's office, Conway, North Wales.

HALSEY'S PATENT CRUSHER AND AMALGAMATOR.—This machine is NOW IN OPERATION at ESSEX WHARF, ESSEX STREET, STRAND. GOLD ORES carefully TESTED on the following terms, including the use and distillation of mercury:—

Samples not exceeding 5 cwt.	£1 10 0
" 10 cwt.	2 0 0
" 1 ton	2 15 0
" 2 tons	3 15 0
" 3 tons	4 10 0
" 4 tons	5 0 0

Larger quantities by special agreement. Price of the machine complete, £200.

PATENT IMPROVED WIRE ROPE WORKS, MILLWALL, POPLAR.—A. J. HUTCHINGS, and CO., Sole Makers to the Lords of the Admiralty.—ROUND and FLAT ROPES, of every description, suitable for mining operations or other purposes, GALVANIZED or UNGALVANIZED, MANUFACTURED upon an IMPROVED PRINCIPLE, ensuring great pliability and durability. The superiority of these ropes over hempen ones, in point of strength, lightness, durability, and cost, is admitted by all who have tried them.

GUIDE ROPES, SIGNAL CORD, LIGHTING CONDUCTORS, &c.

Office, 117, Fenchurch-street, London.

WIRE ROPE AND SUBMARINE TELEGRAPH WORKS, 30, WAPPING, LONDON.—The undersigned respectfully solicit attention to the great REDUCTION in the PRICE of their ROPES, which they continue to manufacture of the very best material. The only Prime Medal awarded for "Excellent Workmanship" in wire ropes, shown at the Great Exhibition in Hyde Park, was obtained by them.

WILKINS AND WEATHERLY

IMPROVED PATENT WIRE ROPE.—Mr. ANDREW SMITH, the ORIGINAL INVENTOR OF WIRE ROPE, LIGHTING CONDUCTORS, and SUBMARINE TELEGRAPHS, solicits the attention of the public to his IMPROVED PATENT MANUFACTURE, as the best and cheapest, having obtained his sixth patent since 1835.—Office, 69, Princes-street, Leicester-square, London.

HENRY J. MORTON AND CO'S (No. 2, BASINGHALL BUILDINGS, LEEDS) PATENT WIRE ROPES, for the use of MINES, COLLIERIES, RAILWAYS, &c.—one-half the weight of hemp rope, and one-third the cost; one-third the weight of chains, and one-half the cost in all deep mines in the kingdom. References to most of the principal colliery owners in the kingdom.

GALVANIZED SIGNAL CORDS AND KNOCKER LINES; will not rust or corrode, and not affected by the copper water in mines. Very strong, and not at all liable to break. Prices from 15s. per 100 yards.

PATENT ASPHALTED ROOFING FELTS, 1d. per foot.—DRY HAIR BOILER FELTS, TO SAVE COAL.

PATENT BOILER COMPOUND, for bad water.—FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES, of all sizes.

GALVANIZED IRON ROOFING AND SPOUTING.—MILNER'S FIRE-PROOF SAFES.

STOCK OF MINING AND RAILWAY STORES in Liverpool and London:—vis., OILS, GREASES, COTTON WASTE, SPUN YARN, WHITE LEAD, VARNISHES, &c.; and at very low prices.—Address, 2, Basinghall-buildings, Leeds.

SOLE AGENTS for Prof. GLUKMAN'S ELECTRIC SIGNAL from RAILWAY GUARD to ENGINE DRIVER, and also for the use of COLLIERIES and MINES.—N.B. Illustrated price list on application.

MORTON'S PATENT WIRE ROPES.—HENRY J. MORTON AND CO., GALVANIZED IRON ROOFING AND SPOUTING WORKS, 2, BASINGHALL BUILDINGS, LEEDS.

IMPROVED PATENT WIRE ROPES, for MINES, COLLIERIES, RAILWAYS, &c.—References to all the large colliery owners in the kingdom. One-half the cost of hemp or chain, more durable, and ONE-THIRD THE WEIGHT OF CHAIN—very important advantages for deep mines.

FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES, for the use of IRONWORKS, COLLIERIES, RAILWAYS, WAREHOUSES, STORES, &c. The most ACCURATE MACHINES in use, and the cheapest.

MACHINES of all sizes, for RAILWAY WAGONS, CARRIES, or WAGONS.—For prices and all other information, apply to HENRY J. MORTON and Co., Galvanised Ironworks, 2, Basinghall-buildings, Leeds.

Asphalted Roofing Felts, Boiler Felts, Galvanised Iron, &c., in Stock.

CHEAP, LIGHT, AND DURABLE ROOFING, ONE PENNY PER FOOT.—HENRY J. MORTON AND CO., 2, BASINGHALL BUILDINGS, LEEDS. PATENT ASPHALTED ROOFING FELTS, for roofing sheds, contractors' cottages, ore-dressing sheds, brick and tile sheds, and all agricultural purposes. One penny per square foot. The cheapest roofing material manufactured. Stocks kept in London, Leeds, and Bristol. DRY HAIR BOILER FELTS, for saving fuel.

H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

SECOND EDITION.—Recently published, in crown 8vo., cloth boards, with tables, pp. 295, price 3s. 6d., by post 4s.

BRITISH MINES CONSIDERED AS A MEANS OF INVESTMENT.

WITH PARTICULARS OF THE PRINCIPAL DIVIDEND AND PROGRESSIVE MINES IN ENGLAND AND WALES.

SECOND EDITION, corrected and revised, with a large addition of valuable information, By J. H. MURCHISON, Esq., F.G.S., F.R.S., &c.

London: Mann Nephews, 29, Cornhill. Copies may also be obtained at Mr. Murchison's office, 117, Bishopsgate-street Within at the Mining Journal office, 26, Fleet-street, London; and at the office of Mr. W. E. Collins, Tavistock.

REVIEWS ON THE FIRST EDITION.

Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—*Mining Journal*, Dec. 2.

This is a valuable guide to investors in mines.—*Herapath's Journal*, Dec. 2.

A very unpretending but useful little volume, and contains much information, which cannot fail to be interesting to all connected with a most important branch of our national industry.—*Morning Herald*, City Article, Dec. 18.

Any attempt to afford reliable information in the shape of facts must be useful, and tend to make British mines take a better position among the investments of the day.—*Morning Chronicle*, City Article, Nov. 24.

Mr. Murchison has condensed much useful information respecting a field of speculation on which great ignorance prevails; and has here brought together the details most wanted on the legitimate mining undertakings at home. He gives an account, alphabetically arranged, of the principal dividend and progressive mines. We heartily concur in the hope expressed by Mr. Murchison, "that British mines may take their proper position among the investments of the day."—*Globe*, City Article, Dec. 7.

Mr. Murchison has had for some years considerable experience in the management of the business of British mines, and has devoted much attention to mining in this country, and is entitled to be heard with attention when he discourses upon a subject which is of such vast national importance as the mineral wealth we possess. The book will be found extremely valuable as a guide to all who are interested, or about to seek investments in mines; and we have elsewhere availed ourselves of some of the mining curiosities which Mr. Murchison has so skilfully brought together.—*Observer*, Dec. 24.

The author of this work is a gentleman who has for some years past had considerable experience in the management of some of the best of our progressive mines in the south of Devon and east of Cornwall; and under his auspices an immense amount of capital has been legitimately embarked in the employment of mining industry, with every prospect of ultimate success. He is, therefore, well qualified from experience to write on the subject of British mining, and he has produced a work which will be exceedingly valuable to any one who desires to adventure in this important branch of our home industry. . . . And comprising all that is necessary to guide a person in a judicious outlay of his capital.—*Plymouth Journal*, Dec. 7.

The author of this little work has evidently devoted considerable attention to the subject on which it treats, and has succeeded in producing a volume replete with information valuable to those interested in mining speculations.—*Bristol Mirror*.

Those who are seeking information on mines and mining operations, with regard to money investment, will find all the instruction and guidance they need in these pages.—*Doer Chronicle*.

This is a very valuable book, which all who are interested in mining ought to possess. It supplies a very great amount of information, both on the general subject, and on the history of particular mines, especially in Cornwall. It is calculated, we think, to give an impulse to legitimate mining adventures, and to prudent enterprise. . . . We repeat, that Mr. Murchison's volume is a well written and useful book, and we hope and expect it will be extensively sold and read.—*Cornwall Gas*.

This work gives a very interesting account of British mines, and of their value as means of investment. It treats chiefly of copper and lead mines, and points out their immense value if properly worked.—*Glasgow Examiner*.

A very valuable work to those engaged in mining matters. It contains a great amount of important information, not to be had in an equally clear, condensed, and comprehensive form, in any other publication.—*Morning Advertiser*, City Art., Dec. 20.

The best guarantee the public can have of the accuracy of the work, which is indispensable to those persons who have any interest in mining.—*Derbyshire Courier*.

This is a clear, succinct, statistical, historical, and geological description of the leading mines in Great Britain, with an especial view to their eligibility as investments. The author has taken particular care to discriminate between those mines which are sound and legitimate, and those which are simply speculative in their character. He has treated the subject with great ability.—*Blackburn Standard*.

RAILWAY WAGONS.—WM. A. ADAMS, MIDLAND WORKS, BIRMINGHAM. BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS, IN STOCK—FOR SALE OR HIRE.

RAILWAY WHEEL AND AXLE WORKS.—GEORGE WORSDELL AND CO., WARRINGTON, MANUFACTURERS OF EVERY DESCRIPTION OF HAMMERED IRON, TYRES, AXLES, &c.

GRIFFIN AND HENSON, RAILWAY CARRIAGE AND WAGON BUILDERS, SOHO, BIRMINGHAM. MANUFACTURERS OF EVERY DESCRIPTION OF IRONWORK for RAILWAY CARRIAGES and WAGONS.

INGLIS AND CHISHOLM, MANCHESTER, MAKE SMALL STEAM-ENGINES for MINERS, CONTRACTORS, &c.; also, DRILLING, PUNCHING, and SHEARING MACHINES, and OTHER TOOLS, of the best quality, at a reasonable price.—Address, INGLES and CHISHOLM, Charles-street, Garratt, Manchester.

MESSRS. ROBERT STEPHENSON AND CO. CONTINUE TO CARRY ON THEIR MANUFACTORY at NEWCASTLE-UPON-TYNE. They insert this notice in consequence of an advertisement, which may probably mislead.

CLECKHEATON IRONWORKS, YORKSHIRE.—JOHN TAYLOR, MANUFACTURER OF ALL KINDS OF FORGINGS for LOCOMOTIVE, MARINE, and OTHER ENGINES, HEAVY SHAFING, ARM MOULDS, and ALL OTHER COUNTRY FORGINGS.

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(TESTIMONIAL.)

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IMPORTANT DECISION RESPECTING THE LLANGENNECH COAL UNDER THE SMOKE NUISANCE ACT.—An information was exhibited against Mr. Fleming, Brewery, Camberwell-green, at the Lambeth Police Court, on the 12th February, 1855, for not having applied an apparatus for the consumption of smoke to the furnaces of his copper and steam-engine.

Subsequently to the examination of his furnaces by the Government inspector he abandoned the use of the ordinary North Country, and adopted that of the Llangennech Coal; since which, it was admitted by the police inspectors, no smoke had been observable.

It was not denied by Mr. Fleming that smoke had issued from the premises during the time the ordinary steam coals of the North were in use; but it was asserted by one of the inspectors, who visited the premises, that the Act of Parliament required an alteration in the construction of the furnace, so as to consume the smoke, notwithstanding the use of a coal which was itself smokeless. That question was argued before Mr. Elliott, the police magistrate, and the following report, and the decision thereon, appeared in the daily papers the next day:—

Mr. Parry, counsel for the defendant, drew the magistrate's attention to a clause in the Act of Parliament, which stated that all furnaces at present in use, and hereafter to be used, must be so constructed as to consume their own smoke; and observed that, without any re-construction of his furnace, Mr. Fleming had, since the information was laid, used only the Llangennech Smokeless Coal, the same as had been used for many years at Sir Henry Meux's brewery, and which was in effect a perfect compliance with the Act; but, inasmuch as the inspector of police had intimated to his client that, without the application to the furnace of the smoke-consuming apparatus, he would still be liable to an information, he (Mr. Parry) wished to take the magistrate's opinion on the point.

The police magistrate (Mr. Elliott) stated that he considered the matter exceedingly simple; if there was no smoke caused, there was none to consume, and, therefore, no complaint could arise under the Act.

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4000	Black Craig (lead), Kirkcubrightshire	5	—	—	0 10 0	0 2-6 July, 1853.
200	Botallack (tin, copper), St. Just	9 1/2	230	—	330 0 0	0 7-0 April, 1855.
1000	Bryntal, Llanidloes, Montgomeryshire	7	1	—	0 5 0	0 5-0 June, 1851.
1000	Carn Brea (copper, tin), Illogan	13	85	—	220 10 0	2 0-0 April, 1854.
10000	Castle Slate Quarry, Dolwyddelan	1	1 1/2	—	0 2 3	0 0-4 Feb., 1855.
256	Comford (copper), Gwynedd, Cornwall	7 1/2	7 1/2	5 1/2 6%	0 0 0	3 0-0 June, 1850.
256	Conduvor (copper, tin), Camborne	30	100	—	55 0 0	3 0-0 Jan., 1855.
128	Cwmystwith (lead), Cardiganshire	60	185	—	45 0 0	0 0-0 March, 1855.
1024	Devon Great Conso (copper), Tavistock	1	370	365	435 0 0	9 0-0 March, 1855.
12000	Dhurro (copper), Ireland	1	1	—	0 3 0	0 1-8 Nov., 1854.
179	Dolcoath (copper, tin), Camborne	25 1/2	77 1/2	—	0 75 0	0 8-0 Feb., 1854.
12000	Drake Walle (tin, copper), Calstock	11 1/2	1	—	0 0 0	0 1-6 April, 1853.
800	East Darran (lead), Cardiganshire	33	80	—	228 0 0	4 10-0 April, 1854.
128	East Pool (tin, copper), Pool, Illogan	24 1/2	100	—	0 0 0	0 5-0 Feb., 1854.
1234	East Wheel Margaret (tin, copper)	24 1/2	100	—	0 13 4	0 10-0 Dec., 1854.
1200	Eyam Mining Company, Derbyshire	40	30	—	390 10 0	1 10-0 Aug., 1850.
494	Fowey Conso (copper), Tywardreath	40	35	—	41 7 3	1 0-0 April, 1855.
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1024	Gonamena (copper), St. Cleer	13 1/2	17	—	0 7 6	0 7-6 Dec., 1852.
30000	Great Crinins (copper), St. Austell	1	1	—	0 0 0	0 1-0 Sept., 1854.
18750	Great Feggoth (tin), St. Austell	4 1/2	1	—	0 10 0	0 3-0 Oct., 1852.
119	Great Work (tin), Gernoe	100	200	—	181 10 0	5 0-0 Nov., 1854.
1024	Herodfoot (lead), near Liskeard	5 1/2	2	—	2 12 6	0 7-6 April, 1854.
6000	Hingston Down Conso (copper), Calstock	2 1/2	11	—	1 5 6	0 0-0 March, 1855.
1000	Holmshush (copper), Callington	2 1/2	—	—	23 0 0	— Feb. 1854.
2000	Holyford (copper), near Tipperary	11	—	—	3 5 0	0 5-0 Sept., 1852.
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3048	Kenneguy (copper), Breage	6s. 7d.	—	—	0 4 0	0 4-0 March, 1854.
1200	Kirkcubrightshire (lead), Kirkcubright	—	—	—	1 13 0	0 5-0 May, 1854.
30000	Lashmore (copper), Tipperary, Ireland	100	1000	—	0 1 0	0 1-0 July, 1853.
20	Laxey Mining Company, Isle of Man	100	1	—	1300 0 0	50 0-0 Feb., 1855.
1000	Lewis (tin, copper), St. Erth	21 1/2	1	—	0 2 0	0 2-0 Aug., 1851.
160	Levant (copper, tin), St. Just	2 1/2	100	—	1044 1/2	2 2-0 Feb., 1855.
400	Liaburne (lead), Cardiganshire, Wales	100	100	—	218 15 0	2 2-0 Dec., 1854.
320	Maehon Slate and Slab Company	25	29	—	2 10 0	1 5-0 Dec., 1854.
160	Ditto (New Shares)	18 1/2	22 1/2	—	0 17 6	0 15-0 Dec., 1854.
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8000	Merilyn (lead), Flint	2 1/2	16 1/2	15%	10 6 0	0 14-0 Jan., 1855.
80000	Mining Co. of Ireland (copper, lead, coal)	1 1/2	1 1/2	1 1/2	0 1 6	0 1-6 April, 1855.
5000	Nantawen and Parfwhi	1 1/2	1 1/2	—	0 3 9	0 1-3 Nov., 1854.
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470	Newtons Mining Company, Co. Down	50	—	—	324 0 0	2 0-0 Dec., 1854.
2000	North Pool (copper, tin), Pool	22 1/2	65	—	249 10 0	4 0-0 Sept., 1853.
140	North Rosekar (copper), Camborne	10	100	—	4 1 0	0 5-0 March, 1855.
6000	North Wheel Baset (copper, tin), Illogan	10	20	19 1/2 30	33 0 0	0 10-0 July, 1853.
6400	Par Conso (copper), St. Blazey	1 1/2	12	—	3 0 0	0 10-0 Oct., 1854.
5000	Park United (lead), North Derbyshire	1 1/2	15	—	1 15 0	0 10-0 June, 1851.
1160	Park St. George (cop., tin), Perranabuloe	2 1/2	300	—	50 0 0	0 10-0 Nov., 1853.
800	Phonix (copper, tin), Llanfyllin	15	15	—	6 0 0	1 0-0 Sept., 1854.
1000	Polberro (tin), St. Agnes (Preferential)	15	—	—	24 4 0	1 5-0 Feb., 1855.
560	Providence Mines (tin), Uny Lelant	20 1/2	21	—	0 8 0	0 1-0 Jan., 1855.
1948	Rix Hill (tin), Tavistock	3 1/2	—	—	3 0 0	0 0-0 March, 1855.
256	Rosewarne United (copper, tin), Gwinnear	24	152 1/2	100	358 0 0	8 0-0 March, 1855.
256	South Caradon (copper), St. Cleer	2 1/2	320	—	69 0 0	4 0-0 May, 1853.
6000	South Tamar (silver-lead), Beerferris	11 6s. 6d.	6	—	278 5 0	10 0-0 March, 1855.
256	South Tolgus (copper), Redruth, Cornwall	15	95	—	8 8 6	0 2-6 Dec., 1853.
124	South Wheel Frances (copper), Illogan	37 1/2	370	380 400	0 17 6	0 7-6 April, 1852.
1024	Sperran Conso (tin), St. Just, Cornwall	1 1/2	2 1/2	—	888 0 0	8 0-0 Feb., 1854.
1024	St. Aubyn and Gwilym (copper, tin), Breage	80	100	—	11 10 0	3 0-0 Oct., 1850.
94	St. Ives Conso (tin), St. Erth	50	100	—	4 11 0	2 0-0 Feb., 1853.
1000	Stray Park and Camborne Vein (copper)	10 1/2	5 1/2	—	6 18 6	0 5-0 Feb., 1855.
6000	Tamar Conso (silver-lead), Beeralston	4 1/2	2 1/2	—	7 16 3	0 5-0 Oct., 1847.
6000	Tinoroff (copper, tin), near Pool, Illogan	7 1/2	3 1/2	3 1/2 3	1 15 0	1 0-0 Feb., 1854.
2048	Trehane (silver-lead), Menheniot	2 1/2	5 1/2	4 1/2 4 1/2	4672 15 0	7 0-0 Jan., 1855.
6000	Trelegh Conso (copper), Redruth	6	—	—	403 13 6	2 10-0 April, 1851.
572	Trelyn Conso (tin), St. Ives	11 1/2	24	—	0 1 0	0 1-0 Feb., 1855.
96	Trevaean (copper), Gwynedd, Cornwall	32 1/2	150	—	308 10 0	4 0-0 March, 1855.
120	Trevelian (copper), Gwynedd, Cornwall	10 1/2	—	—	0 15 0	3 0-0 June, 1854.
120	Trevelian and Barriar (copper), Gwynedd	130	6 1/2	—	58 0 0	5 0-0 Dec., 1854.
4096	Trevelian (silver-lead), Menheniot, Cornwall	2	—	2 1/2 3 1/2	47 5 0	2 0-0 Feb., 1854.
1000	Trumpet Conso (tin), near Helston	95	—	—	2 5 0	0 2-6 Jan., 1855.
400	United Mines (copper), Gwynedd	40	210	—	0 11 0	0 7-0 Jan., 1855.
1024	Wellington (copper, tin), Perranuthnoe	8 1/2	—	—	2 10 0	0 10-0 March, 1855.
7800	Welsh Foteal (silver-lead), Talybont, Card.	5	10	—	265 5 0	4 0-0 Feb., 1855.
2500	Ditto	3 1/2	28 1/2	—	10 0 0	2 0-0 March, 1855.
6000	West Baset (copper), Illogan	1 1/2	17 1/2	28 28 1/2	23 5 0	1 5-0 Nov., 1854.
256	West Caradon (copper), Liskeard	20	130	—	25 0 0	5 0-0 April, 1855.
256	West Darnell (copper), Gwynedd	21 7	14	14	642 10 0	20 0-0 April, 1855.
1024	West Providence (tin), St. Erth	7 1/2	275	200 210	651 5 0	25 0-0 March, 1855.
200	West Wheel Seton (copper), Camborne	77	275	—	0 10 0	0 10-0 Feb., 1855.
1228	Wheel Arthur (copper), Calstock	8 1/2	18	13	6 11 1/2	2 13-3 April, 1855.
256	Wheel Baset (copper), Illogan	10 1/2	550	—	1 4 6	0 2-0 Dec., 1854.
256	Wheel Buller (copper), Redruth	5	500	470 490	3375 10 0	8 0-0 May, 1854.
1024	Wheel Charlotte, Perranuthnoe	3 1/2	18 1/2	210	1 5 0	0 5-0 Sept., 1852.
256	Wheel Clifford (copper), Gwynedd	41 14s.	5 1/2	—	4 10 0	0 2-0 Oct., 1853.
5700	Wheel Exmoor and Adams United	—	115	—	220 0 0	3 0-0 Aug., 1854.
124	Wheel Friendship (copper), Devon	—	—	—	235 10 0	2 10-0 Feb., 1855.
5000	Wheel Golden (all-lead), Perranabuloe	4 1/2	—	—	38 15 0	0 7-0 Jan., 1855.
6000	Wheel James (iron, copper), Roche	14 1/2	—	—	4 10 0	0 2-0 Oct., 1853.
512	Wheel Jane (silver-lead), Kea	2 1/2	80	—	220 0 0	3 0-0 Aug., 1854.
430	Wheel Love (tin), Wendron	33	100	—	38 15 0	2 0-0 March, 1854.
112	Wheel Margaret (tin), Uny Lelant	79	33 1/2	—	167 3 0	2 10-0 Feb., 1855.
512	Wheel Mary Ann (lead), Menheniot	70	400	—	40 10 0	8 0-0 Sept., 1852.
40	Wheel Okeley (tin), Uny Lelant	24 1/2	—	—	47 10 0	8 0-0 Jan., 1855.
240	Wheel Reeth (tin), Uny Lelant	24 1/2	—	—	0 4 0	0 4-0 Feb., 1855.
196	Wheel Seton (tin, copper), Camborne	107	258	—	24 13 0	12 0-0 July, 1854.
520	Wheel Trelawny (silver-lead), Liskeard	8 1/2	32	—	0 2 0	0 1-0 Aug., 1854.
1024	Wheel Tremayne (tin, copper), Gwinnear	9 1/2	4 1/2	4 1/2 5 1/2	0 0 0	0 0-0 Feb., 1855.
4096	Wheel Wrey (lead), St. Ives	11 1/2	8 1/2	—	24 13 0	12 0-0 July, 1854.
8000	Wicklow (copper), Wicklow	1 1/2	—	—	0 2 0	0 1-0 Aug., 1854.
10000	Wrygan (slate), Festiniog	1	1 1/2	—	—	—

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5000	Altan Mining Company (copper), Norway	£14 1/2	2	—	4 5 0	0 15-0 Nov., 1853.
73000	Baden, Grand Duchy of	—	—	—	0 10 0	0 1-0 Nov., 1852.
10000	Brazilian Imperial (gold), Brazil	25 1/2	3 1/2	—	34 17 6	0 10-0 Dec., 1854.
3484	Burra Burra (copper), South Australia	5	136 1/2	—	69 12 0	4 0-0 Jan., 1855.
10000	Cobre Copper Company (copper), Cuba	40	35 1/2	—	0 1 6	0 1-6 March, 1854.
100000	Colonial Gold, Australia	15	23 1/2	—	4 18 0	1 0-0 March, 1855.
10000	Copiapu Mining Company (copper), Chile	15	23 1/2	—	8 10 0	0 1-0 Jan., 1855.
30000	General Mining Co. of Peru (copper), Peru	30	18 1/2	14 1/2 16 1/2	2 0 0	0 15-0 March, 1854.
10000	Minas (lead), Pozo Ancho, Spain	3	7 1/2	—	0 2 0	0 1-0 July, 1853.
103815	Marquette and New Granada	1	7 1/2	6 1/2 7	0 0 0	0 8-0 March, 1854.
20000	Mexican and South American (cop.), Mexico	9	—	—	0 0 0	0 1-0 June, 1853.
189676	North British Australian	1	—	—	33 4 0	1 5-0 July, 1848.
3000	Oberhof (lead), Nassau	—	6	5 1/2 5 1/2	0 1 9	0 7-0 Jan., 1855.
7000	Royal Spanish (copper), Cuba	12 1/2	—	—	27 17 6	2 0-0 Nov., 1854.
104000	San Fernando (silver-lead), Mexico	15	31 1/2	32	1 16 6	0 4-0 Feb., 1855.
11000	St. John del Rey (gold), Brazil	15	—	—	—	—
48174	United Mexican (silver), Mexico	—	—	—	—	—

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
3000	Adelaide Land and Gold Comp.	—	—	—	—	—
100000	Agua Fria (gold), California	1	—	—	—	—
20000	Almaden (silver-lead), Spain	2	—	—	—	—
20000	Australian (gold), S. Australia	6	1 1/2	1 1/2	—	—
70000	Brucutu (gold), Brazil	—	—	—	—	—
40000	Clarendon Conso, Jamaica	—	—	—	—	—
45480	Cologne Mining Company	1	—	—	—	—
25000	Dalacarla (all-lead), Sweden	1	—	—	—	—
25000	Fortuna (silver-lead), Spain	1	—	—	—	—
120000	Gladbach (silver) Rhenish Pruss.	1	—	—	—	—
20000	Iberian (silver-lead), Spain	1	—	—	—	—
13000	Jamaica (copper)	1	—	—	—	—
20000	Keweenaw Point (cop., sil.)	5	—	—	—	—
2300	Kinsigthal Min. Ass. Germany	4	—	—	—	—
60000	Liberty (gold), Virginia, U.S.	1	—	—	—	—

MINES WHICH HAVE SOLD ONES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
3000	Altarnun Con. (tin, cop.), Altar.	2 1/2	—	—	—	—
940	Balncon Con. (tin), Uny Lelant	2	—	—	—	—
4000	Balteswold in United	1 1/2	—	—	—	—
12000	Ballyvaughan (lead), Wicklow	21 8	—	—	—	—
4000	Ballyvaughan, Co. Clare	21 8	—	—	—	—
5000	Barytes Company of Ireland	1	—	—	—	—
4000	Bedford Conols	1 1/2	—	—	—	—
508	Bed and Lanarth, Gwynap	11	—	3 1/2	—	—
1500	Birch Hill, Bridford	28 1/2	—	—	—	—
3000	Birch Tor and Wlifer, Lydford	10	—	—	—	—
1000	Birling Well (cop.), W. Devon	10	—	—	—	—
120	Birlowall and Nanpan (tin)	30	—	—	—	—
4000	Borrowdon Conols, Plympton	4 1/2	—	—	—	—
240	Boscon (tin), St. Just	30	—	—	—	—
4335	Bottle Hill (cop.), Plympton	27 1/2	—	—	—	—
120	Bosconia, Llanwrthwl	10	—	—	—	—
4000	Bronfroyd (lead), Wales	10	—	—	—	—
100	Brynfod Hall (lead), Flint	30	—	100	—	—
400	Budnick Conols (tin), Perran	2 1/2	—	2 1/2	—	—
3000	Bwlch (sil. lead), Cardiganshire	5	—	—	—	—
2000	Cargran (cop.), Merioneth	5	—	—	—	—
2000	Carr-Glyn, Cardiganshire	10	—	—	—	—
1024	Carrilly & Carrigan, S. Wales	8	—	—	—	—
5000	Callington (ld, cop.), Callington	27 1/2	—	—	—	—
3334	Calstock Conols (copper)	4	—	—	—	—
3164	Calstock United (tin and cop.)	2 1/2	—	—	—	—
1360	Camborne (copper)	10	—	—	—	—
1024	Cardigan Conols, St. Cleer	5	—	—	—	—
2000	Cardona (tin, copper), Crowan	7	—	—	—	—
50000	Cararavonshire Slate	1	—	—	—	—
3648	Carnyarth (tin), St. Just	3	—	—	—	—
5000	Carragh-hwa (cop., lead)	10	—	—	—	—
1000	Carnarvon (tin), Gwynedd	40 1/2	—	—	—	—
4000	Castle Dinas (tin), St. Colomb.	2 1/2	—	—	—	—
5000	Caylan, North Wales	23	3	2 1/2	—	—
200	Cefn Brynno (lead), Cardigansh.	3	—	83	—	—
2000	Clara (lead), Cardiganshire	21 5 6	—	—	—	—
1624	Clijah & North (c. cop.)	1	—	—	—	—
3000	Clevedon Wood	8	—	14 1/2	—	—
2000	Coed Mawr Pool (lead), Llanwrth.	5 1/2	—	—	—	—
15000	Commanera, Galway	—	—	—	—	—
3110	Cook's Kitchen, Illogan	213 10 9	—	—	—	—
30000	Crookdon (copper), Cork	—	—	—	—	—
800	Court Green (copper), Cork	10	—	—	—	—
1053	Crookdon Moor (cop.), St. Cleer	8	—	13	—	—
6130	Crookdon, Dinas Mowddwy	1	—	—	—	—
600	Craig-y-Mwyn (lead), Llanwrth.	8 1/2	—	—	—	—